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"TO IMPROVE THE SOIL AND THE MIND."

TO THE FRIENDS OF AGRICULTURE.

In offering to the public the first number of the Eighth Volume of the Cultivator, and in tendering to our personal friends, and the thousands who have already given us assurance of their support, the compliments of the season, we feel a pleasure in the confidence that the satisfaction we experience is reciprocal, and that we are but exchanging sentiments of kindness and good will. We enter upon the year under favorable auspices; with our means of usefulness greatly enlarged; and the experience of the past gives us grounds of hope for the future. As conductors of the Cultivator, we should be doubly ungrateful not to acknowledge the many proofs of confidence and kindness we have received. Our friends, therefore, who have so cheerfully interested themselves in our behalf—those who have so liberally and effectively aided us by contributions for our journal—Conductors of the public press who have copied our Prospectus, or noticed our journal—Postmasters who have rendered us such services and facilities in the transmission of money, &c.—in short, all friends of the cause of agriculture into whose hands this paper may fall, will permit us to wish them peace and prosperity, and a happy, thrice happy, New-Year.

AGRICULTURAL MEETING.

The friends of agriculture in New-York, will recollect that the annual meeting of the State Agricultural Society will be held at Albany on the 21st Wednesday of February next. The interests of agriculture demand a full and explicit expression of the will of the great mass of farmers in the State, with regard to many topics connected with an improved husbandry, the formation and support of County Agricultural Societies, semi-annual meetings of the State Agricultural Society, the establishment of Agricultural Schools connected with experimental farms, an Agricultural survey of the State; in short, on all subjects which can advance the cause of good farming. In no way, it is believed, can this desirable object be so well attained as by a meeting of farmers and those engaged in the cultivation of the soil, from all parts of the State; certainly in no way can the wishes of the people on the matter be more fully elicited.

No one can doubt that an efficient State Society, conducted with spirit and ability, serving as a rallying point to the friends of Agriculture, holding semi-annual meetings in two or more places of the State, developing and embodying in a series of reports from able and practical farmers the best methods of culture, cropping, and rotation, would prove of the greatest utility to the country; and it can be as little doubted that if the proper measures are taken, and the right feelings enlisted, if the friends of Agriculture awake to the interests at issue and give a prompt and general attendance, these desirable results may be obtained. We would suggest to the numerous county or town Agricultural Societies that are now organized, the propriety of being fully represented at the coming meeting of the State Society. These associations, many of which have been formed the past year, exhibit the most gratifying proof that the people, the farmers themselves, the very individuals most interested, have begun to act; and the spirit

of zeal, liberality, and devotion to the great source of state and national prosperity exhibited thus far, we hope will not diminish until the end of their organization is fully accomplished.

The time has arrived when the flourishing state of the country, and all its great branches of industry, warrant the expectation that something will be done by the State, to aid in the advancement of Agriculture. Much is not asked or desired. The farmers neither wish or require Societies with bloated resources, and exercising an overshadowing influence, but they ask, and reasonably, from the treasury of the State they so liberally aid in replenishing, sums sufficient to give an impulse to the County Societies, and enable the State Society to perform the ends for which it was instituted. We do not presume to dictate, but can there be a reasonable doubt that had the legislature appropriated a small sum to have been apportioned among the County Societies, and distributed as premiums at the late fairs, that the State would not have been much the gainer eventually? Does any well informed man doubt that if three or five thousand dollars was appropriated to the formation of a Board of Agriculture, and employing one or two Commissioners to make an Agricultural survey, that the money would not be returned with interest to the coffers of the State? And if a grant of two or three thousand dollars was annually made to the State Society to be expended in premiums at its semi-annual meetings, who can doubt that the benefit would far more than counterbalance the trifling expenditure. We merely allude to these things, because in this way small sums may be made to bear most immediately and effectually on the prosperity of agriculture.

We earnestly invite the attention of all well wishers to the farming interests to this subject. The legislature of the State, will not, we are confident, refuse to listen to the voice of the people properly expressed, and we hope that the meeting which is to be held in Albany, on the SECOND WEDNESDAY of Feb. next, will be so attended as to leave no room for doubt on the subject. We publish this month several valuable communications on these topics which will be read with interest. We particularly request the attention of the managers of Agricultural Societies to the suggestion of our respected correspondent, T. C. Peters, that the Cultivator be furnished with the names of the President and Secretaries of the various Agricultural Societies in the State, as furnishing when published, great facilities for address, and an interchange of opinions. All such lists forwarded us will receive a place in our columns. It is to be hoped that the Committees appointed at the last meeting of the State Society to prepare reports on various subjects of interest to the farmer, will be prepared to make them at the next meeting. New-York can, if she will, have a State Society second to no Agricultural Society in the world; let the meeting of February demonstrate that she both can and will.

PREPARATION OF BACON.

It is not uncommon to hear foreigners, and particularly Englishmen, complain of the undeviating use of pickled pork in this country, while bacon is so much neglected. There may be two causes for this,—one is in our habits of living, which renders the daily use of meat indispensable, and can be gratified in no other way so certainly; and the other the difference in the temperature of this country and Great Britain, which renders the summer preservation of bacon more difficult here than there. There can be no doubt, however, but that the more common use of bacon among our farmers, would prove an essential addition to their comfort, and give an agreeable variety to a principal article of their food. In this country, the idea of *smoked meat* is invariably associated with the word *bacon*, but such is not the case in England. It is there applied to all meat salted and dried, whether by smoking or otherwise; and large establishments exist in which bacon is prepared by drying, with the aid of stoves without smoke. Among the farmers this operation of drying is performed by suspending the flitches from the beams over the kitchen; or where smoking is to be added, hanging them in the chimney. During the process of smoking, oak wood is preferred, and when completed they are placed on the racks over the kitchen for use. In this country we have heard of but few instances in which the making of bacon without smoke has been attempted, and we shall condense from the British Husbandry and other sources the mode there adopted.

The animal fasts twenty-four hours before it is killed; and in the operation of dressing all bruising is avoided. The scaling is usually performed by cloths

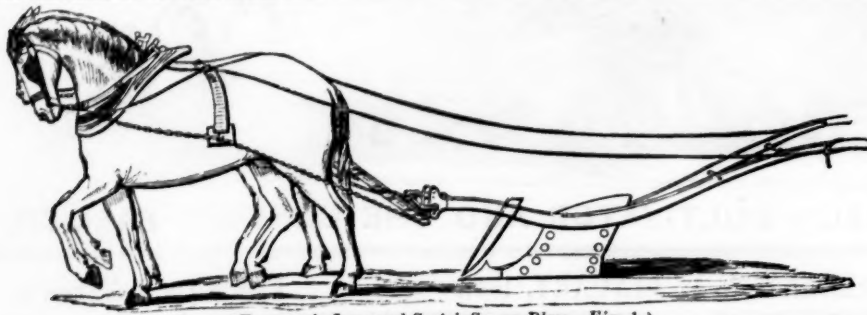
laid on the animal, on which hot water is poured till the hair starts easily; or where bacon for smoking is made, the hair is singed off by burning with straw, and to this the superiority of Hampshire bacon is attributed. After dressing, the pig lays twenty-four hours to cool; the head is then cut off close to the ears; the feet cut, leaving enough of the leg to prevent disfigurement; the body split down the middle, and laid on a table. The ham is then cut from the side by the second joint of the back bone. The spare-rib taken out, and the shoulders taken off at the first rib next the shoulder. Both hams and shoulders must be trimmed carefully, their corners rounded, and all loose fat taken off. Thus it will be seen, that the body of the hog is made into six pieces, three on a side, the ham, flitch, and shoulder, although in common parlance all these are termed "flitches of bacon," when cured.

As is the case in this country with the pickling of pork, the salting of the meat is there performed differently in the several sections of the country. In Westmoreland, the flitches or hams, after trimming, are rubbed hard with bay salt, and left on a stone bench to drain off the brine. After four or five days this rubbing is again performed, with an addition to the salt of about an ounce of finely powdered salt petre to each ham, afterwards suffered to lie for a week and then hung up to smoke or dry. When the weather is warm they are wrapped in paper and packed in oat chaff. In Berkshire the flitches are first rubbed with the common salt and salt petre, and then laid in a trough where they lie for three weeks or a month, according to their size, being frequently turned, and are then taken out to dry. In preparing the celebrated Wiltshire bacon, "the flitches are laid in large wooden troughs, and sprinkled over with bay salt, then left for twenty-four hours to drain off the blood and superfluous juices. They are then taken out and wiped thoroughly dry, and some fresh bay salt previously heated in a frying pan is rubbed into the flesh until it has absorbed a considerable quantity." This process is continued four or five successive days, and they are then kept in brine five weeks when they are hung up to dry. In drying or smoking the neck of the flitch should hang downwards, and the operation is usually performed in about a fortnight, although large hams will require a longer time. They must be kept at all times quite dry, and neither bacon or ham should ever be preserved in cellars or damp places. The side pieces lose little in drying, but about one-sixth is calculated for the loss in hams.

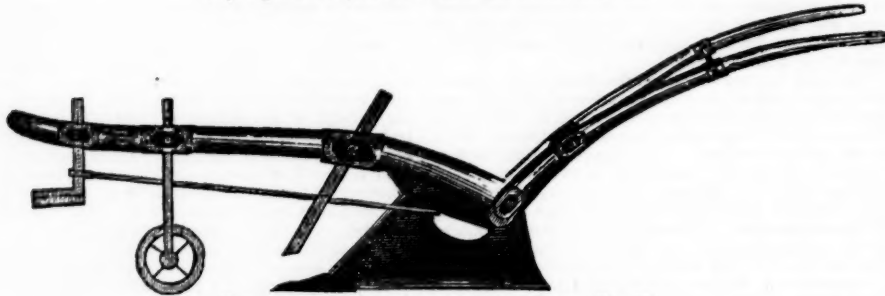
Among the few in this country who have attempted the curing of bacon in the English mode, is Mr. LER- TON, of Tennessee, who in the "Agriculturist," (page 184,) has thus in substance described the mode of preparing it. The meat must lie in salt from 24 to 48 hours, when the loose salt is brushed off and the meat hung on hooks from the joists to dry. When warm weather comes on, it is necessary to guard against the fly, and this is done by bags made of cheap cotton cloth, drawn over the bacon as it hangs, and the mouth of the bag tied close around the string by which the flitch is suspended.

There can be no question that lying in salt too long is injurious, making the meat hard and inferior, but the time allowed by Mr. Letton would seem hardly adequate for the salt to impregnate a ham sufficiently to preserve it well. We think too Mr. Letton is in error, in asserting, as he does, "there is no such thing as smoking of bacon and beef in England." Since in Sinclair's Works, the County Reports, the Grazier's Guide, British Husbandry, and indeed every English work of note in which the subject is referred to, ample directions are given for smoking, and it is universally spoken of as a common mode of curing meat. It is, however, more prevalent in some districts than others; and we should like to have some of our farming friends who have the conveniences, make the experiment of curing bacon by salting and drying rather than by smoking. It is to be presumed that the addition of sugar to the salt, in the proportion of 1 lb. of sugar to 3 of salt, and 2 ounces of salt petre would materially add to the quality of the bacon, as well as aid in preserving it when dried.

YELLOW BUGS AND CUCUMBERS.—"A subscriber" says that a thin layer of tow spread over cucumber and melon plants when they first appear, will save them from the striped yellow bug. Our remedy for the bug, and for the worm in the garden, is to put a coop with a hen and a good brood of chickens there, and these intruders and most others of the insect depredators will soon become scarce.



(Ferguson's Improved Scotch Swing Plow—Fig. 1.)



(Hart's Improved Berkshire One Wheel Plow—Fig. 2.)

TRIAL OF PLOWS.

Experiments in England and at Worcester, Mass.

Of all the implements used in husbandry, the plow is confessedly the most important. With other tools, defective, or of an inferior quality, by adding more labor, or employing extra help, the difficulty may be obviated, or the harvest secured; but a bad plow is such a radical defect that it will be felt in every stage of the farming, from the putting the plow to the ground to the gathering of the crops, and always injuriously. There are therefore, no questions of more interest to the farmer, than those relating to the proper construction of the plow, its lightness of execution, and the excellence of its work. These two points have of late attracted much attention; and though much light has been thrown upon the subject by the various experiments instituted by competent and skilful men both in Europe and in this country, it may well be questioned whether it is yet divested of all its difficulties. Enough has been done to prove, however, that of several plows working in the same soil and performing equally good work, one will require double the power of another; or, in other words, to make good work with one plow, only two horses will be required, while another will require four. Almost wholly overlooked as this point of ease of draft has been by the farmer, it is not to be wondered at that he sometimes finds his horses much more distressed at the same work some years than in others, or that sometimes they are required to perform work entirely beyond their power, owing to the bad construction of the implement. To show the vast difference in the ease of draft, or the lightness of working, we propose to give some account of experiments that have been made to test this point. To determine the force exerted by the horses in plowing, an instrument called a Dynamometer has been invented, which by the compression of springs in the draft, shows with great accuracy the power expended in the operation.

The most complete set of experiments yet made are those instituted by Mr. PUSEY, President of the Royal Agricultural Society of Great Britain, and described by him in the 3d No. of the Journal of that Society. The points Mr. Pusey had in view in his experiments, and it will be seen they embrace the most important questions relating to plowing, were,

1st. The comparative lightness in draft of wheel and swing plows.

2d. The lightest plow absolutely of whatever kind.

3d. The effect of different soils upon the qualities, and chiefly on the draft of the plow.

4th. The comparative tenacity of different soils.

5th. The power of two horses to plow the strongest or clay soil.

Ten plows, embracing some from the most celebrated makers in England, the highly famed Scotch swing plow, and several of those in common use in the different districts of the kingdom, were selected by Mr. Pusey for his experiments, and he was aided by the presence and advice of some of the most distinguished agriculturists in the country. The plows were worked by skilful plowmen; and, as much interest was attached to the experiment on the Scotch plows, a Clydesdale span of horses and a plowman accustomed to the plow were sent up by Lord Moreton to manage that part of the trial. The Scotch plow has obtained considerable celebrity from the strong praise bestowed upon it by Mr. Loudon, who declares the Improved Scotch Plow to be superior to any similar implement known in England. They are constructed on the principles laid down by Mr. JEFFERSON, in his celebrated Report on the true shape of the mold-board, addressed to the French Institute, which he

showed from mathematical data should be in the form of a gentle hollow curve; while the other plows were more full and short, not raising the earth gradually like a wave, but throwing it over at once. In condensing Mr. Pusey's experiments, we shall select as sufficient for the present purpose, from the list given by him, three plows—1st, the Improved Scotch plow (fig. 1,) made by Ferguson, and entirely of iron—2d, a one wheeled plow (fig. 2,) of wood, with an iron breast, by Mr. Hart, but commonly known as the improved Berkshire plow; and 3d, an old fashioned plow made of wood, and such as is in general use in many parts of England, and is called the old Berkshire plow. Some previous experiments had convinced Mr. Pusey that the Hart plow was of easy draft, and the ones now instituted showed that his impressions were correct.

FIRST TRIAL.—Field, a sandy loam, free in working, a clean wheat stubble; depth of furrow 5 by 9 inches; a depth and width carefully adhered to; plows drawn by two horses. Power required, given in stones of 14 lbs. each:

Ferguson's improved Scotch swing plow, . . . 19 stone.
Hart's improved Berkshire, one wheel, . . . 14 "
Old Berkshire, . . . 23 "

In this experiment it appears that the Scotch plow was 31 per cent heavier for the horses than Hart's plow. That a plow with its mold-board rusty, or covered with coal tar as is the practice with the maker, runs 6 stone heavier than when clean and bright, in the same soil. That the easiest plows were wheel plows and the severest ones for the horses swing plows. That the old Berkshire would be worse by two stone for 3 horses, than Hart's would be for two.

SECOND TRIAL.—Land, a clean bean stubble, with a dark mold on blue clay. The furrow here was 6 inches by 9; and this strong clay was selected to test the question whether there was any plow, with which two horses, without too great distress, could work such lands:

Ferguson's, . . . 50 stone.
Hart's, . . . 43 "
Old Berkshire, . . . 52 "

The difference between the plows was less in this trial than the former; but the power required, and the effect of such severe labor on the horses, were considered as decisive of the question that two horses are not sufficient to plow such lands in a proper manner. The average of the first experiment was 18 stone, that of the second, 47, and this within the space of two miles; a fact that should be remembered by farmers, as near, if not absolutely adjoining fields, may require a great difference of power to plow them thoroughly.

THIRD TRIAL.—As some of the gentlemen at the trial deemed the principle laid down by Mr. Jefferson, and adopted in the Scotch plow, better adapted to sandy than adhesive soils, a field of brown loamy sand was selected, and the plows were tested at the depth of 4, 5, 6, and 7 inches respectively—width of the furrow, 9 inches.

4 5 6 7 inches.
Ferguson's Scotch plow, . . . 18, 19, 19, 22 stone.
Hart's, . . . 11, 12, 16, 18 "
Old Berkshire, . . . 22, 21, 24, 31 "

At the depth of 4 inches, the Scotch plow still appears at a disadvantage, but at the depth of 7 inches the plows, with the exception of the old Berkshire, approached in the power required to move them much more nearly. It has been usually laid down as a rule in works on the plow and plowing, that the draft increases rapidly in proportion to the depth plowed, or that if the draft at 4 inches be 18 stone, at 7 inches it will be as 49 to 16, or 54 stone. In mathematical terms, the resistance is according to the square of the depth. This is a very im-

portant point, and to test it fully, Mr. Pusey made an experiment with the Scotch plow, in a poor moory soil, of uniform quality to a great depth. He commenced with a furrow 5 inches deep by 9 in width:

Depth in inches.	Draft in stones.
5,	23
6,	22
7,	25
8,	30
9,	31
10,	40
11,	50
12,	50

The difficulty of keeping the plow at the proper depth accounts for some discrepancies in this table; but it proves the law of increase laid down in the books altogether erroneous; since, if that were the true rate, the draft at a foot would not have been 50 stone, but 132.

At this state of the trials, it occurred to Mr. Pusey to ascertain the draft of each plow when merely drawn on the surface without severing the ground at all. The result of several trials was as below, the weight of the plow being also given.

Surface draft.	Whole weight.
Ferguson's, 12 stone.	15 stone.
Hart's, 3 "	12 "
Old Berkshire, 8 "	

This experiment proved that the surface draft was altogether in favor of the wheel plows, Ferguson's being a swing plow, and the two others one wheel each. The next experiment by Mr. Pusey, was to determine how much of the power exerted in plowing, was actually expended in moving the soil:

Gross draft.	Surface draft.	Working draft.
Ferguson's, 19 stone.	12 stone.	7 stone.
Hart's, 17 "	3 "	9 "
Old Berkshire, 21 "	8 "	13 "

In this experiment, the situation of the Scotch plow and Hart's is greatly changed, and the disadvantage under which the first has labored, seems to have disappeared. It would seem therefore, that the great difference in working between the Scotch plow and Hart's, must arise from the shape of the mold-board, and the want of a wheel or both.

FOURTH TRIAL.—The field chosen was a deep strong loam, good for all kind of crops, resting on yellow clay. It was selected by Lord Moreton, to prove to the farmers of the county that ground usually worked with four horses might be done with two. It offered great resistance to the plow as the table will show; furrow 5 inches by 9.

Ferguson's, 35 stone.
Hart's, 23 "
Old Berkshire, 36 "

The superiority of Hart's one wheel plow over the Scotch plows, was as evident here as before. The Clydesdale horses worked without signs of distress on this ground.

FIFTH TRIAL.—Many farmers attended this trial. The soil was more a clay than a loam. Four strong horses were at work in line, the usual practice, on an old Berkshire plow in this soil, and evidently having enough to do. The gauge showed that in a furrow 5 by 9, the force exerted was 32, and in one of 6 by 9, 34 stone. On this soil the several plows worked as below:

Ferguson's, . . . 24 at 5 inches, . . . 26 at 6 inches,
Hart's, 27 " . . . 30 "
Old Berkshire, . . 32 " . . . 34 "

Here it will be seen Hart's plow lost the advantage, for the first time. This was attributed to the fact, that owing to the soft nature of the ground, the wheel "instead of governing the depth of the plow, sunk in the soil, and dragged through it like a coulter."

The Clydesdale horses were much aided in their work; and it was the opinion of the bystanders that such land usually worked with four horses in line, might be plowed with two such horses abreast; though it was said it would cost as much to keep two horses in that condition, as to support the four in their usual working state. On this ground where the horses had a firm footing they worked with perfect ease.

SIXTH TRIAL.—This last trial was made on a damp moory soil, selected by Mr. Pusey as a kind of ground in which the Scotch plows might excel. The ground was a grass ley, the roots much thrown out by the winter, and the surface more than half bare. The following was the result; 6 inches deep.

Ferguson's swing plow, 22 stone.
Hart's one wheel, 18 "
Old Berkshire, 28 "

In this case the Scotch improved plow was half as heavy again in its draught as one of the others, (a two wheel plow) and nearly one-third heavier than Hart's.

In summing up the trials, Mr. Pusey remarks that the plow requiring the least draft was Hart's, though in the last trial it was beat by Ransome's two wheel plow, and that of all modern plows the Scotch swing plow was the heaviest, "out of the question on a light soil, and by no means the best on a heavy one." The following table shows the average draft of all the plows on the several soils in which the experiments were made:

Trial 1. Sandy loam,	17 1/2 stone.
2. Clay loam,	47 1/2 "
3. Loamy sand,	16 1/2 "
4. Strong loam,	31 1/2 "
5. Clay loam,	28 1/2 "
6. Moory soil,	20 "

We have thus given in as condensed a form as possible, all the principal points of Mr. Pusey's experiments, and shall now proceed to copy from Mr. Colman's Report of the Worcester Plowing Match, the results of the most skillfully conducted experiment on the draft of the plow yet made in this country. The experiments took place to determine the award of two premiums offered by the Massachusetts Agricultural Society, of \$100, and \$75, for the best plows—one plow for lapping furrows, and the other for laying them flat. The following remarks by Messrs. Clark and Putnam, the reporting committee, will enable the reader to understand the experiments:

"The power required to turn over a given quantity of earth by a plow, is a very important consideration. This power can be measured with great accuracy; greater than many of the committee supposed, before they witnessed the operation. The Dynamometer, inserted between the plow beam and the chain, measures with great accuracy the strength exerted by the team. Suppose the strength applied be the same that would be required to raise 336 lbs. over a single pulley; suppose also that the depth of the furrow is six and a half inches with a width of 13 inches. Multiply 13 by 6½ and you will have 84 with a fraction. Now if 336 lbs. of power, will take up and turn over 84 inches of earth, then 112 lbs. will turn 23 inches. Tried in this way, the plows exhibited showed the following results. The power in each case is 112 lbs.

FIRST TRIAL.—Plows for lapping furrows.

By Charles Howard,.....	24 inches.
Ruggles, Nourse & Mason,...	24 "
John Wilson,.....	24 "
Stevens' Plow,.....	20 "
James Stewart, (Scotch plow,)...	19½ "
Cornelius Bergen,.....	18 "
Barnaby & Mooers,.....	17½ "
E. G. Whiting,.....	18 "

SECOND TRIAL.—For flat furrows.

Prouty & Mears,.....	27½ "
Charles Howard,.....	25 "
Ruggles, Nourse & Co.,.....	24 "
Barnaby & Mooers,.....	18½ "
E. G. Whiting,.....	16 "

Another plow by Prouty & Mears, ... 26 "

Another plow by Charles Howard, ... 25 inches."

The terms used in this experiment are different from those adopted in the English one; but those who choose may easily compare them with each other by remembering that 112 lbs. is 8 stone, and making the furrow slice to correspond, which in the American experiment was 84 inches and in the English one 45; or 6½ by 13, to 5 by 9. When this is done, the experiments will be found to correspond remarkably well, and the general results of both may be considered as establishing many important truths, some of which have been already pointed out. Thus it will be seen that in the same soil, and under the same circumstances one plow will work 100 per cent easier than another, or that one horse will perform the work of two, or two that of four, with the same ease. Could horses speak, they would doubtless direct a vote of thanks to the men who have invented, and the farmers who use implements, by which one half of the severest labor the horse performs, is done away. We very much question whether our farm horses on our heavy wheat lands do not often perform much more severe labor than the highest rated named by Mr. Pusey, (52 stone, or 728 lbs.) as we have seen them day after day showing more exertion and evident distress in plowing than when drawing a ton a day over hard roads. Whatever may be the obduracy or tenacity of the soil, or the toughness of the sward, only one pair of horses is used, where, under the same circumstances, four would be used abroad, and the question is never asked whether the plow is of a construction so defective as to require 5 cwt. to move it, or whether it works with ease, with a force of 2 cwt. applied. Mr. Pusey estimated the fair draft of the Clydesdale horse at 165 lbs. or 12 stone, and that of a common English farm horse at 112 lbs. or 8 stone.

(To be concluded next month.)

WORK FOR THE MONTH.

In the latitude of New-York, farm work must be considered as mostly suspended during the winter months; the most that can be done is to prevent past labor being undone, and make such arrangements for the future as circumstances demand. Negligence and inattention is as inexcusable in the winter as in the summer; and frequently is productive of worse effects. How often do we see farmers suffer such losses in their flocks and herds from sheer inattention or illness in the winter than a year of hard labor and privation will hardly place them in their first position. If cattle and horses were looked to as they should be, or if sheep and swine were not left to get their living by hook or by crook, we should not see so many walking skeletons harnessed or yoked to the plow in the spring, or so many carcasses around the fields and roads inviting the crows to their feast. The prudent careful farmer will consider the winter as the trying time for his stock, and by shelters, and sufficient food, avert its rigor, and prevent its consequences as far as possible.

Horses should always have plenty of litter in their stables; it answers a double purpose; first by absorbing and retaining the salts of the urine that fall upon

it in a considerable degree, and thus rendering the manure more valuable; and secondly, by preventing in part that liability to swell, to which the feet and legs of a horse are subjected when standing on a hard or plank floor.

All animals should, if possible, be housed, or provided with shelter. Cattle require much less food when stabled, than when allowed to run at large, as they waste little or none, and comfort is essential to their thrift. More manure is also secured, an object of great consequence to every farmer that understands his true interests. Sheep, if housed, must not be crowded into close stables or houses, as disease is apt to be the result; and all animals require to have their stables well ventilated to prevent the effects of bad air. Horses are better fed from mangers than racks, and sheep should have their food so that they draw it from above, as the grass seeds and chaff fall upon and fill their wool, injuring it materially.

Water and salt, are two things too much overlooked, by those who have the care of animals in the winter. If a horse or an ox is led or driven to water once a day, it is considered by many all they need; when if left to themselves while feeding on such dry food, they might drink at least half a dozen times; and sheep, by some farmers are forced to go without drink for weeks, if not for months. Nature's laws in such respects, are not infringed with impunity; and the evil, if not at once apparent, is not the less certain. Salt is necessary to the health of animals. Their fondness for it is proved by the avidity with which the wild animals, the deer and the buffalo of our native forests, collect around the licks or natural brine springs of our country; and the experiments of Cullen, Berry and others prove that this fondness is founded on principles that render it essential to their health. It should at all times be accessible to them; summer and winter it is equally grateful, and its good effects are always apparent.

A little attention to the food of animals during the winter is frequently of much use in preventing disease. Horses are more liable to disease than any other domestic animal, and consequently require additional precautions. We have found decided advantage, where horses are fed on grain, from occasionally, or even regularly, giving them a few roots, turneps or carrots, (we prefer the last,) in addition, or in part as a substitute for their allowance of provender; and since we have adopted this course with the addition of a handful of ashes once a week with their grain, we have not had a beast attacked with bots or with cholera.

Apples put up for winter use in the ordinary way in cellars, require occasional examination, and if any are found beginning to rot, they should be looked over and separated, as they will infect or injure others. Whenever it is necessary to handle winter apples, from the gathering them on the tree to the latest period of keeping them, care should be taken not to bruise them in the least, as such apples soon decay. A record of the qualities for cooking or for keeping of all the most prominent fruits of the orchards should be kept, their liability to particular diseases noted, that the best only may be retained, or propagated. Some trees are very shy bearers; some produce fruit water cored, or subject to bitter rot, some do not ordinarily attain maturity in the northern parts of our country, and it is only by knowing, not guessing at facts, that certainty in the quality or adaptation of particular fruits can be ascertained.

If you wish to have large well flavored eggs, and early chickens, look to your fowls in the winter. Fowls require care and attention, but what is given them is amply repaid to the owner. If profit is consulted too many cocks will not be kept over the winter in the farmyard; one to eight or ten hens is sufficient. Fowls cost little on the farm, and they contribute much to the comforts of the farmer. Ham without eggs would lose half its value, and what would become of a Thanksgiving feast without the crowning chicken pie.

Winter is the season that, among the children of the farmer, and indeed most others in this country, is particularly devoted to education, and every parent should take a deep interest in the common school. It is here the first impulse is given that makes or mars the man; and it is all-important that what is done here should be done well and effectually. To keep up the interest of all, parents, teacher, and children, it is necessary that the first should occasionally visit the school, and watch the conduct and the progress of the scholars. Children like to see others take an interest in them, and such attention will not be without its influence on the instructor.

It must never be forgotten by the farmer that there are works of charity and kindness, that more frequently press their claims upon him during the winter, than at any other time. While his happy family is clustered around the cheerful hearth; while his table is loaded with the bounties which a kind providence, personal industry, and a fruitful soil have given him; while his wood-house is filled, his granaries overflowing, and every reasonable want supplied; he must not forget there are other less favored individuals or families around; children destitute of fire and food; widows and orphans distressed and destitute, all requiring care, and not to be forsaken while the frosts of winter are upon the earth. For the poor there must be employment: for the destitute there must be a supply; and the honest and industrious, or the unfortunate poor, have claims on the more fortunate, that may not be disregarded. Well directed charity is one of the few acts

of life in which both the giver and the receiver are blessed; let no one then forget the poor.

Last, but not least, in the work to be performed this month, is the duty of extending the circulation of agricultural journals. The man who reads one will feel that every farmer should receive one or more, and will endeavor to make those who do not read sensible of the loss they sustain. There are many excellent agricultural papers in the country, but we are inclined to consider ours at least as valuable as any, and we hope every subscriber to the Cultivator who has a neighbor or friend destitute of such a paper, will show him the work and prevail on him to forward his name to us at once.

ANSWERS TO INQUIRIES, &c.

Bees, Wheat, &c.

"MESSRS. EDITORS—I possess a few swarms of bees, and am desirous to preserve them in hives. I wish to learn through the medium of your periodical, the best method of preventing more than one swarm swarming together; and likewise the best preparation for washing the hives, if any is required.

Oakland county, Michigan.

F. B."

We fear there is no way, where bees are kept in hives, of preventing more than one hive swarming at a time; or when they so come out, of preventing their incorporation into one swarm, if they will it. Hives of such a size, or so constructed as to prevent the necessity of swarming, would seem to be the only remedy in this case. As to washing the hives, Mr. Weeks, in his work on bees, one of the best authorities in this or any other country, says—"The old custom of washing the hive with salt and water, sweet herbs and other substances to give them a pleasant effluvia should be speedily abolished." Clean, sweet hives, seem to be all that is necessary to content the bee, unless the sun should be shining very hot at the time of swarming, when some protection or shade for the hive, may be proper.

Our correspondent adds,—"I almost forgot to mention that one ounce of mercury, dissolved in water enough to wet one bushel of wheat will kill chaff, [query smut?] completely. The wheat should be dried in lime, then sown the same day."

We have inserted the query, because the experience of others has proved that such a solution will prevent smut; and because we think a preparation powerful enough to kill chaff, would also be fatal to wheat. We are sorry to learn that the doctrine of transmutation has disturbed the harmony of the Michigan tea coteries, and set our fair Wolverine friends "by the ears," and will hint for their satisfaction that there are two ways in which the case stated may be explained, without recourse to the absurdity of transmutation. In the first place the quantity of chaff in the two kinds of wheat sown might have been materially different; and secondly, as the kind of wheat in which the chaff most appeared, (the red chaff ball,) is the most liable to suffer from the winter of any grown in the country, the excess of chaff might be owing to the destruction of the wheat by the frost, and consequent greater growth of the chaff.

Bitter Rot in Apples.

"MESSRS. EDITORS—Your subscribers at this place wish to inquire if you know any cure for the bitter rot in apples, which has destroyed much of the late fruit in this and other states for some years past. Please give us such information as you may have on the subject.—Snoddyville, Tenn. C. SNODDY, P. M."

The complaint alluded to by Mr. S. is at present not an uncommon one we believe in this part of the United States; although little or no notice has as yet been taken of it in the public journals. With us, it has as yet been confined to the Spitzenberg and winter greening, and these are not always affected. It appears to be owing to a fungus or mildew, which attacks the apple before it is ripe, and the later the ripening, the more extensive the damage to the fruit. When once attacked, the spots spread in the fruit after gathering until it becomes wholly black on the surface, and worthless. If gathered when wet, or before it is fully ripe, fruit suffers more than when secured in good condition. Exposure of all parts of the head of the tree to light and ventilation by pruning, would seem to be one of the first methods suggested for a remedy. A R. I. Greening tree of ours which had for some time produced fruit subject to the bitter rot, on being thoroughly pruned, gave a fruit of superior size, ripening better, and mostly exempt from the rot.

If any of our friends who are acquainted with this disease of the apple, and know of a remedy, will furnish us with a history of its cause, progress, and cure, they will much gratify us and essentially benefit the public.

Cobble Stone Buildings.

"MESSRS. EDITORS—I have lately purchased a farm on which are quite a quantity of cobble stones. Wishing to build, I have thought it would be well to use the stone for that purpose. I wish to inquire of some of your subscribers, who have built of cobble stones, the expense of such buildings. A portion of Saratoga county is quite stoney, and I think the owners of such lands might be induced to make use of the stone for building purposes, if assured it would be as cheap, or cheaper, than brick or wood. Will not some one experienced enlighten us, as to the best method of erect-

ing such buildings, the requisite thickness of the walls, the cost per perch, and the comparative cost of cobble, with buildings of other materials.

Saratoga Springs, 1840.

J. H. B."

We hope the request of our correspondent, and we add ours to his, will receive from some builder, or from one acquainted with the cost, &c. of such structures, attention, and that such information, detailed and full, will be given as the subject requires. There are many parts of our country where the materials for cobble stone buildings are most abundant; and the houses or barns constructed of them promise to be very durable, as they certainly must be comfortable, and when a little care is taken very beautiful. It is a process by which, in many places, a positive nuisance may be converted into a decided good.

Food for Milk Cows.

"MESSRS. EDITORS—Which is the best feed for cows, cooked or uncooked—how much is sufficient for each cow per day, and how much hay—that is to make them give good yields of milk? I keep twenty cows, and am anxious to learn through your valuable paper the cheapest way to keep them, without feeding swill or still slop. I have no land to raise my own feed, and therefore a word from you or some of your correspondents would be thankfully received by one of your subscribers.

Long-Island, 1840.

T. D. W."

We have never known an instance in which food was cooked for milk cows; although from the success which has attended the practice of cooking food for other animals, particularly horses and pigs, there can be no doubt it would be equally beneficial when applied to cows. As our correspondent does not raise his own feed, it would be obviously impossible to state the cheapest mode of keeping his cows, as the price of hay, grain, or roots varies much at different times, and changes must be made to correspond. Soiling has in England been proved to be the cheapest manner in which cattle of any kind can be kept, and is extensively practiced in providing milk for the large towns. In winter, hay and roots, or hay and meal, made of peas, barley, or oats, the hay cut, mixed with the meal and wet, or the meal made into a slop and fed in that form, is considered the food that produces the best milk; brewers or distiller's swill causes an abundant flow of milk for a time but it is of a very inferior quality. We will gladly give a place to any of our friends who have experience on the subjects indicated in our correspondent's queries.

Manures.

"A. C. S." of Shushan, N. Y. has transmitted us the following queries, which we are obliged by want of space to answer in a summary manner, merely adding that full information on most of these topics may be found in the previous volumes of the Cultivator.

"1. Human urine, how is it used?"

By being combined with some substance, such as compost, or common earth, which will retain the valuable salts with which it is charged; such preparation when scientifically made is called urate, one of the most valuable of manures.

"2. Bone dust—where can it be had, and how is it used?"

Bone dust is the bones of animals, or human bones, ground in mills, and is of different qualities, according to the fineness. It is sometimes sown broadcast, but is usually sown in drills with seeds, that its effect may be at once felt. There are mills for grinding bones in the vicinity of Albany, Boston, and Troy, and perhaps in other places in the United States.

"3. Salt—is it a good manure?—if so, how much to the acre, to what crops and at what time should it be applied?"

Cuthbert W. Johnson, of England, one of the most distinguished agricultural writers in that kingdom, has published a work in which he strongly recommends salt as a manure, at the rate of from ten to twenty bushels per acre, to be sown some two or three weeks before the seed is put into the ground. The benefits he asserts are as follows:—1. When used in small proportions it promotes putrefaction. 2. By destroying weeds, grubs, &c. 3. As a constituent or direct food. 4. As a stimulant to the absorbent vessels. 5. By preventing injury from sudden transitions of temperature. 6. By keeping the soil moist. Here, salt has been little used, and its value remains to be tested.

"4. Salt nitre—is it a good manure, and if so, how is it to be applied?"

The London Farmer's Magazine gives many proofs of the beneficial effects of nitre as a manure. In one instance a field of wheat was dressed with crude nitre at the rate of 1½ cwt. to the acre, with the exception of a part of an acre left as a test. At harvesting seven rods of each part was cut and kept separate. The nitre-dressed part gave 24 sheaves, 11 gallons of wheat, and 54 lbs. of straw. The part not dressed gave 16 sheaves, 6½ gallons of wheat, and 40 lbs. of straw.

"5. Poudrette—is it human ordure manufactured?—if not, what is it?—in what fashion can it be procured, and where?"

Poudrette is manufactured night soil, usually collected in cities. When manufactured it is packed in barrels, is a dry dust with little odor, and is sown either broadcast or in drills. It may be obtained in any quantity as also Urate at the manufactories near New-York. "Flemish soil" is night soil, with slight preparation. In poudrette and urate, we have a nuisance converted

into one of the most valuable of manures; easy of application, and certain in its effects.

Sheep for the Small Farmer.

"MESSRS. EDITORS—Just established on a small farm, and wishing to obtain a small flock of sheep, either by purchase, or by raising them, I am induced to ask your opinion as to the best breed for the small farmer, one that can expect to raise little if any more wool than will be required for domestic use. If there are none of the present breeds that possess the requisites of good constitution, hardihood and good wool, what selections in crossing would be most likely to give such animals as the wants of so large a class of our farmers demand. Oneida County, 1840. A YOUNG FARMER."

We will reply to our friend in very few words,—if wool is his principal object, in getting his flock, then the Merino selected from American flocks, of pure blood and good forms and wool, may be chosen; if the flesh as well as the wool, and comparative hardihood, are taken into the account, then the South Downs are to be preferred; and were we to attempt the production of a flock from any cross for the small farmer, it would be from the South Down ewe and the Merino ram.

Such is the course we would deem advisable in a case like the one stated; but as this is a subject upon which some inquiry has been excited, it may not be improper to give some reasons for the opinion we have advanced.

The sheep principally relied upon for wool suitable for the manufacture of cloths or domestic use, are the Saxon, Merino, and South Downs. For the small farmer, the Saxon, though producing the best wool, has a constitution too delicate, and requires too much attention to be profitable. It is also rather light, and the qualities of form and flesh seem to have been in a great degree sacrificed to that of superior wool. It was at one time supposed that a breed of sheep might be produced by skillful crossing and breeding, having the hardy constitution and form of the old English sheep, and the delicate, silky wool of the Saxons, but after the most persevering efforts it was abandoned; and that nation is now content to purchase their fine wools, and rear their own sheep for inferior wool and for mutton.

Next in the scale is the Spanish Merino, a heavier bodied, harder sheep, with fine wool, not equal indeed to the Saxon, but still sufficiently good for the best domestic or superline cloths. Of all the improved, or imported breeds, the Merino is the most extensively diffused in this country, and few flocks can be found in which more or less of the blood does not exist. A few flocks also of pure blooded Merinos can be found, and notwithstanding the varieties of new sheep, possessing more or less desirable properties, that have been introduced, the Merino is gaining ground in public estimation. For the small farmer who can keep but few sheep, and those for the wool, the Merino has proved a valuable sheep.

The South Down is one of the old English varieties of the sheep, produces the finest wool of any of their native breeds, is a hardy, strong constitutioned animal, adapted to hill lands, or close pastures, and by the skill and care of the Elthams and others has acquired a perfection of form unknown to the earlier specimens of the South Downs. By the connoisseurs of mutton, the flesh of the South Down ranks among the best, and that of the Saxon the worst. There are many fine specimens of the South Down in this country, and we are inclined to consider it one of the most valuable animals yet introduced. Its wool is in fact inferior to the Merino or Saxon, but it has the advantage of them in weight, constitution, and ease of keeping, qualities which give it a strong claim on the farmer.

The above will show why we would, of the three, wool alone considered, prefer the Merino for the small farmer; and will also in part disclose the reasons why we should select the Merino and the South Down to produce a flock from which wool and flesh both were to be objects of greater or less importance.

In rearing a flock by crossing, various opinions have been entertained as to the best method of proceeding; whether the ram or the ewe had the greatest influence on the offspring; whether a South Down buck and Merino ewes; (supposing these varieties selected for the cross) were to be preferred, or South Down ewes and Merino buck should be chosen. Once we might not have considered a decision on this point very essential, but we are inclined now to view it in a very different light, and were we to undertake the production of a flock for ourselves would much rather choose the Merino buck and the South Down ewes, than the Merino ewes, and South Down ram. In the former case we think we should be much more certain of a Merino fleece, and a South Down constitution and carcass, than in the latter, and that result we take to be the real object of the cross.

Without adopting, or endorsing, all the speculations of late writers on the subject of breeding, we think it is a fact that the male leaves his character stamped externally on the offspring more frequently than the female. The horse more frequently gives his color to the colt, the bull his to the calf, and the ram color and fleece to the lamb, than the female parents. It is not invariably the case, but so much more frequently, that the failures must be considered only exceptions to a general rule. This is perfectly consistent not only with those modern theories of breeding that seem entitled to

the most consideration, such as Cline's and Walker's, but also with facts and the results of observation. Berry, Lawrence, Cline, and Youatt, all recommended that in selecting a female for breeding, particular attention be given to her vital and nutritive powers, and Walker, although he assigns a different reason from others, is not less decided on this point, while all agree that in most cases, the form and external character is generally derived from the male. Thus, says Youatt, British Husbandry, vol 2, page 457:—"The flock master, attending in the first instance to these general rules, ought therefore to consider what are the defects among his ewes, either as to shape, quality of mutton, or wool, which he wishes to remove, and to select the tups which he uses who possess in an eminent degree the merits in which his ewes are deficient." The opinions of Walker, as shown in a late number of the Cultivator, need not be repeated here; and we think they all justify us in supposing that to breed from South Down ewes and a Merino ram, when the improvements sought are considered, is clearly to be preferred.

The man, however, who crosses the South Down with either the Saxon or Merino, must not expect the silky, soft wool of the two latter. He will find a good wool, sufficiently fine for all ordinary purposes, and will have sheep of good forms and improved firmness of constitution, as the South Down ewes will in all probability convey more or less of their superior vital stamina, and nutritive powers.

Culture of Indian Corn—Large Crop.

MESSRS. GAYLORD & TUCKER—I read the Cultivator till I was satisfied that I could raise 100 bushels of corn to the acre. I accordingly went to work, and the result of my operation was 112 bushels to the acre; the kind of corn used was the common small eight rowed yellow. I think the crop was matured two weeks sooner by the process of hoeing or not hoeing, for I hoed nothing but the weeds, being careful not to make any hill around the corn, keeping the surface of the ground as nearly level as possible. My corn was from one to two weeks earlier than any of my neighbors. Some of them used to ask me what I did to my corn to make it grow so fast; my answer was, that "I read the Cultivator."

This crop of corn was obtained on a hill farm; the hills not being considered as good for corn as the farms on the creek. Now upon this same hill, with a hard pan bottom, though not near enough to the surface to make it wet, or because it has the advantage of being tipped up sideways a little, I have turned over three acres of stiff sward, that has been mown eight or ten years. I want to plant all or part of it with corn; and being young and inexperienced in the business of farming, I want a little advice. Shall I plow it again to incorporate the manure with the earth? or will a thorough dragging do it? or can I put sufficient upon it by putting it in the hill? I wish to put 30 or 40 loads of long manure to the acre.

One thing more—will the Brown corn ripen before the frost overtakes it in latitude 42°, on the hills in Otsego county? As we have been hoaxed several times with new varieties, and thereby lost our corn, I wish to know the certainty of it.

The Rohan potato does not succeed here according to our expectations, but we will not condemn it yet.

A SUBSCRIBER.

New-Lisbon, N. Y. November 27, 1840.

NOTE BY THE EDITORS.

Experience seems to have shown, that for the corn crop it is better to incorporate the manure with the soil, than to use it in the hill. The latter may be admissible where the quantity of manure is small, or when it is fermented or decomposed, but we have known instances in which fresh manures in large quantities deposited in the hill, produced so much heat in fermentation as to destroy or much injure the corn. The plan pursued by Mr. Brown in growing his great corn crops, is to put a covering of manure on his grass land in the fall before inverting the sward, and then in the spring incorporating another dressing of manure with the surface soil either by harrowing or plowing as the condition of the sward may be. We have found the manure from the pig pen, far the best for dunging in the hill; and have never known corn suffer from its use, in whatever way applied. It is probable "A Subscriber" can incorporate his manure sufficiently, without another plowing; and if the first was well done, he will have a more level surface to plant on than if another plowing should be given. A gentleman in Kentucky has reported 150 bushels of corn from an acre, by planting on a level surface; and only "hoeing the weeds," as was done by our correspondent. Such facts should induce farmers to consider whether the old mode of hilling may not in many cases be advantageously departed from.

As to the Brown corn, we, and several of our friends, planted it last year under such circumstances, and so late in the season, that we considered its ripening as very doubtful. It however proved a fine crop, and is a beautiful productive corn. The fact of its rarely or never failing to ripen among the hills and in the northern latitude of New-Hampshire, we imagine to be proof that it will ripen anywhere where the Dutton corn will, our acquaintance with it would induce us to suppose the Brown corn to be as early as any of the kinds usually grown for crops; farther cropping may be necessary to test its comparative productiveness with us in New-York.

NOTICES FOR THE MONTH, Or the Spirit of the Agricultural Press.

[As we find it impossible to transfer to our columns many valuable papers, and many interesting facts, in the Foreign and Domestic Agricultural Press, we shall continue the system adopted last year of abridging and condensing such papers as we shall deem most important, or glean such facts as will be most useful, and present them to our readers under the form of these Monthly Notices. The origin of the Notice, we shall always be careful to indicate, as far as ascertained.]

NATIVE HOGS IN KENTUCKY.—It is well known that some of our native pigs are real racers, and where wild, are as difficult to be caught as wild buffaloes. A recent letter-writer from that State, thus describes one of the advantages resulting from this breed of pigs, and which is about to be lost by the introduction and rapid spread of an improved and less agile race.

"By the Statutes of this State, (Kentucky) the debtor has the privilege of designating what articles of his property shall be sold under execution to satisfy a debt; and of late it has been a practice in the new counties, among those who seek every means to escape from the pressing demands of the sheriff and constable, to point out the herd of wild hogs in the woods;—they being worth the amount of the execution, the limb of the law is obliged to accept them, 'but the thing is to catch them.' If not taken, they return to the possession of the debtor. A friend of mine saw the same herd of swine offered as satisfaction for execution, five times in one week, and this herd had been borrowed of a neighbor for a few days, and was of the wildest sort, to evade the process of the law. The executions being returned *nulla bona*, the title of the pigs was transferred to their rightful owner."

IMPROVEMENT OF IMPORTED STOCK.—It has been too often the case that valuable animals have deteriorated rapidly when imported from England; but the fine cattle taken into Ohio and Kentucky have not been so influenced; on the contrary, in the best herds, there has been a marked advance on the original stock. A traveler in that region says—"I saw yesterday, heifers three years old, that would weigh 1,500 lbs., and which were the most perfect models of beauty; and their calves of this season, now four or five months old, would weigh down an ordinary cow of full growth, and these lusty fellows were bleating after their dams, and tugging away at the teats like young sucklings, for here cows are kept, not for milk, but to raise calves; and no butter or cheese is made on these large stock farms for the market."

PREMIUM PLOWS.—Several gentlemen have expressed a wish to learn the prices of the plows which competed for the great prizes at the Worcester fair; and what the probable price of the premium kinds would be, delivered at Albany. We cannot say; but as the plow is a very important article of agriculture, if Messrs. Prouty and Mears and Howard will forward us their scale of prices, and for what they will furnish them at Albany on orders, they would confer a favor on many farmers. In the mean time we extract from an able article by Mr. Colman, the prices as stated by him of some of them:

Barnet Vermont plow,.....	\$7 00
Bergen New-York plow,.....	7 00
SUPERSEDER plow, 2 moul-board, Barnaby and Moore's, Ithaca, New-York,.....	12 00
Howard's plow, without cutter or roller,.....	12 00
Prouty and Mears, without cutter or roller,.....	11 50

FARMERS, REMEMBER THE HUMBLED, AND DON'T BITE.—Most of the readers of our agricultural papers, are aware that a new wheat called the Santa Fe, or Osage wheat, has been introduced into South Carolina; that it produces a cluster of ears on a stalk, and that it is selling rapidly at \$5.00 a single head. Now there is every reason to believe that this wheat is nothing more than the *Triticum compositum* of Loudon, or the Egyptian Wheat, figured in his Encyclopedia. It many times appeared in the U. S. under the different names of Egyptian, Will Goose, Money spike, Reed, Seven headed, &c. but has always failed of establishing a character for a valuable wheat. That veteran in Agriculture, G. B. SMITH of Baltimore, says of it,—"During the twenty years of my agricultural experience, this wheat has been presented to my notice at least twenty times."

GREAT YIELD OF CORN.—George W. Williams of Bourbon County, Kentucky, has this year grown on one acre and one-eighth of land one hundred and seventy-eight bushels, or at the rate of one hundred and fifty-eight bushels to the acre. The corn was an early yellow corn, and was planted in rows two feet apart; and one foot apart in the rows. The corn was dropped in a furrow, covered with hoes, the surface leveled, and rolled after planting. The surface between the rows was scraped over with sharp hoes to cut the weeds, which was all the labor the crop received. The soil was good, plowed deep in the spring, and before planting, a thin coat of fresh stable manure was spread over the surface, cross plowed, and harrowed. Mr. Williams attributes much of his success to not disturbing the roots of the corn during cultivation.

IMPORTANCE OF THE SILK CULTURE.—This will be

best understood from the facts gathered from public documents and stated below:

Importation of Silks into the U. S. in 1839,	\$23,000,000
" manufactured cottons,.....	14,692,000
" iron and iron manufactures,.....	12,051,000
" woollen goods,.....	18,831,000
" sugar,.....	9,823,000
" linen goods,.....	6,731,000

These are the most important articles we export from abroad, and a glance will show how much silk exceeds all others, as well as the necessity for introducing the culture at once in this country.

CORN IN INDIANA.—Two brothers in La Fayette Co. Indiana, have raised on their farm the past year, 35,000 bushels of corn. Those who have read Mr. Ellsworth's valuable work on the Wabash Valley, will understand how pork is made from this corn. The hogs are first turned into one field, where they gather the corn for themselves; when this field is exhausted, they are turned into another, and so in succession until they are fattened on the corn eaten, when they are driven to Cincinnati or some other pork market for slaughtering. 350 hogs are allowed to 100 acres of corn where the latter is of medium quality, or 60 bushels per acre.

THRASHING MACHINES.—The best moving power for this important part of the grain farm implements, is water. If it should be considered too expensive for ordinary farmers, where water could be had several neighbors might unite. A friend of ours has one moved by water, which executes the business in the best style. At the Oxford Royal Agricultural Show and Fair, a machine was exhibited, which thrashed sixty bushels in an hour. This greatly exceeds the amount of work ordinarily done by American machines, yet we do not deem it incredible, as we have seen that amount exceeded in a run of a few minutes. We have generally found, however, the greater the hurry in thrashing, the greater the waste of the grain, owing to the impossibility of properly separating the grain from the straw by the rakers.

GEOLOGICAL SURVEY OF NEW HAMPSHIRE.—Dr. Jackson's Survey of this State, now in progress, promises to do much in developing the agricultural and mineral resources of the granite State. Iron, copper, and tin ores, have been discovered, in quantities to admit of being profitably worked. The last is comparatively a new metal in this country, only a few crystals having hitherto been found. The ores found by Dr. Jackson are at the eastern base of the White mountains, are abundant, and yield from 30 to 50 per cent of pure tin. Few metals of greater utility could have been discovered.

GREAT YIELD.—In the Ithaca Chronicle, we find the following statement of the amount and value of production from one-fourth acre of land in that village, cultivated by Mr. Aaron Curtis, who furnished it for publication.

140 bushels of onions at 50 cents,.....	\$70
600 heads of cabbages,.....	30
50 bushels beets,.....	25
	\$125

120 sugar beet seed, produced 1,125 lbs. of beets, or 22½ bushels, occupying 1 1-2 rods of ground, yielding at the rate of 2,400 bushels per acre. Such crops as the above, and those produced by the Editor of the Maine Cultivator, Mr. DEWE, on his acre of land, prove the profit of cultivating but a little land, and doing it well, in the most forcible manner.

CURE FOR THE BITE OF A RATTLE-SNAKE.—The Editor of the Cheraw, S. C. Gazette, says *aqua ammonia* (water of ammonia,) fresh and pure, in doses of a tea-spoonful at intervals of from 15 minutes to an hour, in water, is an infallible remedy for the bite of any snake. This is the dose for an adult, and the medicine is not to be relied upon if the bottle in which it is kept has been frequently opened.

In an early number of the American Journal of the Medical Sciences, is a paper containing a history of numerous cases successfully treated by Ammonia.

GOOD CROPS IN OLD CONNECTICUT.—The N. H. Register says that Mr. Wilnot of West Haven, the past season raised two hundred and seventy bushels of corn, and ten bushels of potatoes, on three acres of land; and the Bridgeport Standard states that Mr. Ellsworth raised on a single acre of land two hundred and forty bushels of ears of Dutton Corn.

DOMESTIC SILK.—From a communication in the Northern Journal, from Mr. J. H. LEONARD, it appears that several persons have fed silk worms in Carthage in this state, the past season, with great success. He says he fed 50,000 worms of the pea-nut kind—that not 30 died during feeding, and that the cocoons were very productive and large. He also fed with complete success, about 15,000 of the mammoth white and sulphur kind,—the cocoons being of unusual size, weighing about 133 to a pound—requiring from 1380 to 1400 cocoons to make one pound of reeled silk. "One acre of land," says Mr. Leonard, "properly set to *Multicaulis Mulberry*, and well cultivated, and fed to the mammoth silk worm, will produce from 120 to 130 pounds of reeled silk, worth \$6 a pound which will amount (one acre,) to \$700. The expense of feeding, the three first months would not be more than the time of one woman to feed them, and a boy 10 years old to pick the leaves the first two weeks, and the help of a boy or girl the third week, would be all that would be necessary."

AGRICULTURAL SOCIETIES.

Ag. and Hor. Society of Washtenaw Co., Mich.

MICHIGAN is a young State, but she is rich in her agricultural resources, and in the spirit of her active and industrious population. The flour and wheat poured down our canals from the far West, prove her agricultural capabilities; the formation and spirit of her agricultural associations, show she is determined to go ahead, and that she will not linger behind the progress of the times.

We have received from the Secretary of the association named above, W. S. MAYNARD, Esq. a Report of the proceedings of the Society at their annual meeting in October, 1840, at Ann Arbor; and the reasons which have obliged us to condense the proceedings of such Societies in our previous notices, will oblige us still to pursue the same course.

Premiums were awarded for the best stock, both domestic and imported; and the show of both on the ground was good. Michigan may not equal Kentucky in facilities for raising cattle, but the country will doubtless improve in its adaptation to grass as the cultivation is extended, and we are glad to perceive that in the matter of cattle, she is determined to start right. Her enterprising farmers will also find that it is more profitable to feed the great crops of corn grown on the rich soils of that state to the easy fattening Berkshire, than to the Landpikes so extensively known in the west, as well as elsewhere.

The show of vegetables was very fine. Valparaiso Squashes, Rohan Potatoes, Chinese Corn, Sugar Beet, Blood Beets, Mangel Wurtzel, and Cabbages of magnificent proportions were exhibited from the fields and gardens of the gentlemen present.

The best feelings prevailed at the meeting, and the interest taken by the farmers of the County in the Association, is the best pledge of its success and extensive usefulness.

Agricultural Society of Barnwell District, S. C.

The Anniversary Meeting of the Agricultural Society of Barnwell District, was held at Barnwell Court House, in November, 1840.

This Society have adopted the excellent practice of appointing a committee at each meeting to make Reports on some assigned topic connected with agriculture, the Reports to be made at the next anniversary. Papers of great practical value are thus furnished the public, and it is probable the same course might be adopted by other societies with much advantage. At this meeting, a Report on the cultivation of cotton, was made by Col. Hammond; on the cultivation of corn, by the Rev. D. Peeples; on the statistics of Barnwell District, by E. Bellinger, Jr., and on Silk, by James Clark. These Reports were ordered for publication in the Carolina Planter.

Fine specimens of the African potato were presented by W. G. Simms; of grapes, by Mr. Prevost; and domestic silk by Mr. Clark.

The Address was delivered by Mr. W. GILLMORE SIMMS, so well known to the public as a beautiful writer, and he did not on this occasion disappoint the high expectation that had been formed of his effort. Of Mr. Simms' oration, the Southern Planter says—

"We shall not attempt to give an epitome of Mr. Simms' Address; to attempt it would be an injustice to that distinguished writer. A copy has been requested for publication, and we hope we may be permitted to present it to the public entire, clothed in its own beauty and excellence. Suffice it to say the address was worthy of the high character which Mr. Simms has acquired as a writer. It was well adapted to the subject and the occasion, and was received by his attentive and delighted audience with long and loud applause."

After the Address the large assemblage of ladies and gentlemen present partook of a fine barbecue prepared for the occasion.

The exhibition of stock was very fine, and of the most encouraging character. The horses, cattle and swine, were much admired for the various excellent qualities that constitute the best animals of each kind.

We take a pleasure in recording these triumphs of Agriculture at the South; particularly at the present time when such an effort is making abroad to destroy the value of the great staple of the southern part of the United States. It shows that they are not confined to the production of a single article; but that their capabilities include others which may by proper attention become as valuable as cotton.

Wayne County Agricultural Society.

At a meeting of this Society on the 15th Nov. in Newark, the following officers were appointed for the current year:—SAMUEL HECOX, Pres't.—Hamilton Rogers and Harvey Mallory, Vice Pres'ts.—D. M. Keeler, Secretary; R. H. Foster, Cor. Sec'y.; Joseph A. Miller, Treasurer; S. E. Hudson, A. L. Beaumont and Cullen Foster, Ex. Committee. At the same time, ESBON BLACKMAR and JOHN M. HOLLEY, were appointed Delegates to the State Ag. Society.

Genesee County Agricultural Society.

This Society held its first annual Exhibition and Fair at Alexander, October 14, 1840. It was very well attended, and went off with fine spirit. There were nearly 100 head of blooded animals on the ground, several of which were imported. The Society is permanently

organized, and has its next exhibition in October. The following officers were elected for the ensuing year:—THEODORE C. PETERS, of Darien, President—Gen. P. Stanton, Middlebury; E. Bishop, Attica; E. J. Pettibone, Elba; Truman Lewis, Orangeville; Phical M. Ward, Perry; Holland Earll, Pembroke; F. P. Pendell, Batavia; Jesse W. Duguid, Le Roy, Vice Presidents.—C. P. Turner, Batavia, Secretary; Thomas Rid, Darien, Corresponding Secretary, and a Manager to each town.

Fair of Tompkins County Agricultural Society.

Of the many County Agricultural Societies that held their meetings the last October, few have seen them go off with greater spirit and more encouraging success, than that of Tompkins county. The concourse of farmers and others was very great; the show of animals, vegetables, agricultural implements, and manufactured articles, such as to gladden the heart of a lover of his country, and encourage to still more strenuous exertions to render her truly prosperous and independent. The pens provided by the society were filled with beautiful cattle, sheep, and swine; and the tables of the show room were laden with fine specimens of domestic skill and ingenuity, honorable to the skill of the workmen, and the fair hands whose taste contributed so largely to the arrangement and to the pleasures of the day. Tompkins county has a good soil, and the vegetables exhibited, and the crops reported, showed that this advantage is appreciated and improved by the farmers. Tompkins county has some fine improved cattle and swine, and the flocks of fine woolled sheep that feed on her hills, are rarely equalled.

Premiums for corn yielding 112 bushels 29 quarts of corn to the acre; wheat 40 bushels 21 lbs. to the acre; Rohan potatoes 300 bushels from three bushels of seed; and for a variety of other articles were awarded. A number of superior Saxony sheep were shown by L. A. MORRELL, and fine Bakewells and Lancashires by Messrs. WOODWARD and BREWER. Among the vegetables was a beet 28 inches long, and the same in circumference, taken from a lot one of which weighed 18 pounds, and a cabbage 15 feet in circumference, and weighed 34 pounds, both grown by Mr. CURTIS. Ithaca has for years been celebrated for its manufacturing skill, and the variety of articles produced there, and the number and finish of those exhibited at this Fair demonstrated that its reputation in these respects was well deserved.

In all such matters it is experience alone that can make perfect; and the decided improvement made in conducting the fairs of this year over those of former ones, proves that in this respect errors have been corrected, and new attractions and inducements to action been made effective. 1840 has done much for Agricultural Fairs; 1841 authorizes us to expect still greater things.

Onondaga County Agricultural Society.

FARM REPORT—D. G. AVERY'S.

E. MARKS, Esq. has kindly placed in our hands, the Report, which, as a viewing committee of farms for the town of Onondaga, he and J. M. ELLIS, Esq. made to the Onondaga County Agricultural Society, at their meeting in October, and from it we select in substance their examination of the farm of B. G. AVERY, which they were invited to visit.

The farm of Mr. Avery lies on the west side of the Onondaga valley, two and a half miles from Syracuse, and contains 160 acres of land. Of this 30 acres lies on the side hill, and is in woodland and permanent pasture; on the east part is a tract of about 20 acres of lowland or swale; and the balance is mostly dry arable land about equally divided into gravelly loam, sandy loam, and alluvial deposits, and like most of the soil of the Onondaga valley very fertile; and under good management producing fine crops. The swale is black muck, resting on a strata of clay of a few inches in thickness, and this on sand.

The crops of the present season were as follows:
Wheat, 19 acres, 380 bushels or 20 bushels per acre.
Oats, 25 " 1500 " 60 " "
Corn, 26 " not harvested, but a beautiful crop; and estimated by Mr. Avery from his experience in former corn crops, at 80 bushels per acre, making 2000 bushels.
Buckwheat, 2 acres not threshed, but very good.
Potatoes, 6 " 1500 bushels or 250 bushels per acre.
Hay, 20 " 40 tons, mostly sold by weight.
Sheep 200; horses 3; neat cattle 13; and swine 22.

The sheep on Mr. Avery's farm are a cross in which the Spanish Merino prevails; and the hogs are grade Berkshires.

The oats grown by Mr. Avery are of the kind called barley oat, having a shorter, thicker kernel and less hull or bran, than the common oat; Mr. Avery prefers it as more productive, and heavier than any other cultivated variety, his sometimes weighing from 42 to 46 pounds per bushel.

The corn-field of Mr. Avery was a beautiful sight to a farmer. The rows were planted 3 feet 5 inches apart each way, and so perfectly straight were the rows, that in a length of 60 rods, a deviation of only a few inches could be perceived, and in whichever direction viewed the rows were equally distinct. Such workmanlike planting adds greatly to the ease of cultivation. The corn planted by Mr. Avery, is the eight rowed yellow, and the Dutton; Mr. A. preferring the latter.

Mr. Avery draws his manures from his yards to his fields, and piles it, allowing it to ferment and decompose thoroughly, and become short muck. The committee considered this a waste of its fertilizing qualities, and Mr. Avery admitted such to be the case; but he contended that the

destruction of the seeds of weeds by the fermentation, and the consequent ease of keeping his land and his crops clean, and the increase of product from this cause more than compensated him for any loss arising from the escape of fertilizing matter during decomposition.

In the summer of 1839, Mr. Avery applied manure to one part of a field which had been previously mown, inverted the sod, and sowed it with wheat. To another part of the same field, (from which he had harvested wheat) he applied refuse lime from the kiln, to the probable amount of 180 bushels per acre; which lime he deems equal in value to one-third of that quantity of stone lime. The result was, that where manure was used, the straw was large, and the berry somewhat shrunken; where lime was used the straw was not so large, but was bright, the berry good, and the yield the greatest per acre. The ground where the lime was used was more worn than the other.

In the swale before mentioned, the committee observed an improvement making by Mr. Avery, in the shape of a sod fence; the opening from which the turf and earth are taken to make the fence serving the purpose of an open drain. Where a fence and open drain are required at the same point, this will probably be found a cheap and valuable improvement. Mr. Avery estimates the expense of such a fence and ditch, aside from posts and boards, at three shillings per rod.

Agricultural Society of Fredericksburg, Va.

MR. GARNETT'S ADDRESS.—The annual meeting of this Society, which has now been established many years, took place on the 13th of November, at Fredericksburg. The zeal and spirit with which it is conducted has had a most favorable influence on the agriculture of the district, and the Reports of its annual meetings are always looked for with interest. Virginia is essentially and truly an agricultural state; its resources in this respect are vast, and if they have in former times been too much neglected if her sons in their haste to be rich, have neglected and forsaken their patrimony for the western states, the action of such societies, by improving the culture of the soil, and developing the resources at home, will prevent the drain on the population and wealth of the Old Dominion, that has acted such an injurious part.

The Address before the Society at the present meeting, as at several of the previous ones, was made by J. M. GARNETT, Esq., whose reputation as an agriculturist, and powers as a writer, are well known to the readers of the Cultivator, to the pages of which he has contributed many excellent papers. An accurate and untiring experimentalist himself, a careful observer of nature, and the effect of various modes of treatment on the same plant, the details of his experiments in culture which constitute the substance of his addresses, renders them particularly instructive.

In our notices of the Chinese Corn, we have expressed the opinion that it would prove a valuable grain for the middle or southern states, where the season gave a certainty of its ripening, and the following conclusions drawn by Mr. Garnett, from his planting of two years, would seem to show our views were correct:

"1st. It ripens sooner in our climate than any of six or eight early varieties that I have ever tried, except the Golden Sioux, which is very unproductive. Secondly, it is fit to grind by the last of August if planted by the 1st of April, and it will produce roasting ears in 90 days. In the next place it is much more productive than any other dwarf corn. And lastly, I infer from the two trials already made, that in land of medium fertility, it will probably yield more per acre, although not more by the hill, than any of our common large varieties, since you may place it so close as to leave rather more than double the number of stalks."

Mr. Garnett states the yield per acre, at the rate of "6 barrels and 2 bushels," and as weighing within a fraction of 64 lbs. to a bushel. Mr. Garnett's remarks on the changes that take place in the color of corn, are interesting, but we must omit them. Mr. Garnett corrects an error into which this paper had fallen, in relation to the point of insertion of the silk in the kernel, when remarking on Mr. Garnett's statements on that point of vegetable physiology, in a former address.

Mr. Garnett adduces some very strong arguments in proof of the position, that frequent stirring the earth in the summer is the surest remedy against drouth, an opinion in which he is unquestionably correct. As a proof of this, and also of the fact that the roots of corn are rarely injured by moving the earth, he quotes from a letter of Mr. Stevenson, of Arkansas, an extract in which he states, "that in 1834 he planted a lot of corn in a light siliceous soil, with a red clay subsoil, the hills 4 feet apart. This he cultivated solely with the single coulter, running it both ways, 7 or 8 inches deep, the strokes 8 inches apart, and within 4 inches of the plants. The summer," he says, "was very dry and warm, but his corn 'never twisted at any time,' although the coulter was used 4 times. In September he cut off some of the corn to make room for a building, and found roots more than 20 inches below the surface." In speaking of the qualities of the white and yellow corn, and the higher price commanded by the latter in the northern markets, Mr. G. says—"Not one southern man in a hundred will ever eat yellow corn bread, when he can get white—To our taste there is nearly or quite as much difference between the two as between a chokepear and a fine seckel or bergamot."

Mr. Garnett describes a most satisfactory experiment he made in planting the shoots or sprouts from grow-

ing potatoes, instead of the roots themselves; he found they gave at the rate of 302 bushels per acre, and there were very few small ones among them. In another experiment made by planting the roots on an even surface, 3 inches deep and 18 inches apart each way, and covering the whole with bean vines, dead grass, garden flags, &c., to the depth of 6 inches. This was all the culture they received, and the produce was at the rate of 504 bushels per acre. It has by some been supposed that Irish potatoes could not be produced in the south, but such experiments show the opinion to be altogether a mistake.

This year, as in former ones, Mr. Garnett has been successful with the Ruta Baga, and thinks there can be no serious difficulty in growing that valuable crop in the middle states. As a general rule we should not advise repeating the turnep crop on the same ground, for though we have sometimes succeeded in that way, yet experience here and in Europe seems to have shown that the crop is not uniformly as good, and is more liable to be attacked by the fly on grounds from which turneps were grown before than on others. We know of no crop which is not benefited by a rotation, though some will doubtless resist the effect of a repetition longer than others.

The Farmer's Register, which has taken a deep interest in the silk culture, remarks that "although there have been sundry cases of success this year, (1840) in raising silk worms, it is nevertheless certain that the far greater number of trials have resulted in general or entire failure;" and Mr. Garnett's experiment in growing cocoons, was not an exception. He estimates the proceeds of his daughter's labor, and that of 6 or 7 other persons, for 7 or 8 weeks, at only about \$35; slender encouragement it is true; but he justly remarks, that an unsuccessful experiment should not be deemed conclusive against the culture.

The closing paragraphs of this excellent address are directed to an exposition of the propriety and necessity of reducing the rates of postage on agricultural pamphlets and periodicals, as well as written communications for such journals, to that of common newspapers; and he has appended the form of a petition to the Congress of the United States for the passage of a law to that effect. We can see no possible objection either on the ground of its effect on the treasury, or on constitutional ones, to the adoption of such a course, and we are confident the best interests of the country demand the change. We trust the proposition will receive the attention of that body.

"Log Cabin Agricultural College."

Our readers will remember that in the last volume of the Cultivator, we gave some interesting notices of the "Great West," from the Rev. T. S. HINDE, of Mt. Carmel, Illinois, a pioneer of the great west, and a contemporary and associate of Boon and his hardy and daring associates; and particularly of his intention to found an institution combining the advantages of collegiate and agricultural knowledge in the best possible manner.

In a late communication to us he states that the institution has been long in contemplation with him, "and arrangements made to erect it long before the rage for 'log cabins and hard cider' had become the topic of the day;" and in it he more fully discloses the 'means' at his disposal, and which he has devoted to its use. Did our limits permit we would gladly give his paper entire, but must content ourselves with a brief notice. The means specified are as follows:—

1st. Six hundred acres of land for the use of the college, and on which the buildings are to be erected. The necessary improvements for this purpose are now making.

2d. A volume of about 300 pages, entitled Soliloquies or reflections on a visit to the Old Dominion, (Va.) embracing many topics connected with the settlement of the West; the rise and progress of its agriculture and commerce; and the progress of navigation from the original bark canoe to the present majestic steamboat. The table of contents show that it will be a most interesting work. Illustrated with plates.

3d. A work to be entitled the Memoirs of the late Theophilus Armenicus, in 3 volumes, embracing a multitude of valuable facts in relation to western states.

These works are now ready for the press.

4th. Nearly ready for the press, a work on "The Philosophy of Moses, as illustrated in the original Hebrew, and sustained by facts as to custom, and maintained by the learned among the Jews." Two vols.

5th. "Notes on the Antiquities of the West; and the principal transactions that have occurred in the Upper Mississippi and the Ohio valleys from their earliest settlement." Few men have had a better opportunity of being acquainted with every part of the West than Mr. H., and few have witnessed more fully the progress of civilization, and its effects on the Indians. Personally acquainted with most of the powerful chiefs that have flourished or fought in the west for the last 50 years, with ample notes of their speeches, and correct minutes of proceedings at the principal Councils that have been held with them, Mr. Hinde can hardly fail of making a work very instructive.

We have only room to add that we wish Mr. HINDE every success in his efforts both in the cause of Education, and the Literature and History of the country, and trust the opening of the 'Log Cabin College' at Mt. Carmel will prove an era in the progress of agriculture, literature, and civilization in the West.

DICTIONARY OF TERMS

Used in Agriculture and its Kindred Sciences.

ERGOT. This is an elongated irregular excrescence, curved and dark colored, sometimes found growing on the heads of several of the cultivated grasses, particularly rye, and the smooth stalked June grass, (*Poa pratensis*.) It is generally known by the name of spurred rye. By some this excrescence has been considered a disease, by some a fungus; but the experiments of General FIELD, of Vermont, would seem to prove that if the young seed is punctured, no matter how, while it is soft, or before the fluid matter it originates begins to harden, the substance which would go to the formation of the grain continues to force its way out, blackens and hardens, and becomes ergot; and hence he infers that ergot in the grains or grasses arises from the puncture of the seeds by insects, or the bursting of their tender envelope from over accumulation of juices. However it may be produced it is an active vegetable poison, and it is singular that the same juices which, elaborated and retained, constitute the farinaceous and nutritive seed, should, when suffered prematurely to escape, produce the offensive and poisonous ergot. This substance is an important article in the *Materia medica*, but requires to be used with great caution, as it is found not always to be under the control of the practitioner, and its effects at times being durably pernicious. Gangrene of the feet, and occasionally death, have resulted from its use by those individuals who have fed upon bread made from grain containing large quantities of ergot, and in some seasons of scarcity in Germany, its effects over whole districts have been serious. To the agriculturist ergot is principally interesting from the loss it occasions him when it occurs in his grain in quantity, by lessening its amount; or when by appearing on his grasses cut for hay, it affects his cattle, producing the formidable disease termed hoof-ail, and frequently destroying or rendering worthless to the farmer the most valuable part of his stock. Though some difference of opinion exists as to the efficiency of this excrescence in originating all the cases of disease called by the above name, and many of them may arise from other causes, such as freezing, &c. yet there is a mass of testimony of the most conclusive kind, and such as to preclude all reasonable doubt in the matter, that ergot will produce the hoof-ail in cattle, and as such, should be carefully guarded against. Its effect seems to be to render the circulation in the extremities, and in extreme cases, of the whole system, torpid and inactive; the consequence of which is, in winter there is a tendency to freeze, and in the summer to ulcerate, mortify, and fall off. Exercise, by promoting circulation, has the effect at times of preventing the natural effect of the poison taking place; but safety can only be calculated upon, by freeing the hay from the poison by a slight threshing before it is given out. Instances have occurred in which farmers, whose meadows and pastures were principally composed of the *Poa pratensis*, losing many of their cattle year after year with the hoof-ail, who found themselves at once freed from every vestige of the disease, by plowing their lands and substituting clover and timothy for the June grass.

ERRATIC ROCKS. Rocks which have been moved from their original position, and transported to greater or less distance, by natural causes, are termed erratic. In some cases the cause of removal may be still operative; in others it appears to have ended before the commencement of the present order of things. In some of the ponds of this country and in Europe, large rocks are found which have moved considerable distances within a few years, but they are always found in situations where they can be acted upon by ice, and to this agent their erratic propensities can clearly be traced. The removal of the erratic rocks or boulders which overpread our whole country, and which may in almost every instance be traced to a more northern origin, is involved in impenetrable mystery; but they serve the agriculturist as an excellent guide in the selection of soils, exercising as they do, by the gradual decomposition to which all stratified or other rocks are subject, no small influence on the earths, and pointing him to the place of their origin by their size or their frequency. In the United States, their course from their original position has been southward, and if the erratic blocks are of lime, greywacke, sandstone, or granite, deposits of the same kind may usually be found not far to the northward.

EVERGREENS. Plants or trees that retain their verdure through the winter of northern latitudes are called evergreens, to distinguish them from those that shed their foliage, and remain leafless during our cold seasons. The most common evergreens are those belonging to the pine and spruce families, of which the white pine, hemlock, black spruce, and yew trees, may serve as specimens. In ornamental planting, evergreens are very desirable; and where they can be successfully transplanted constitute one of the greatest beauties of the landscape. Recent experiments would seem to show that evergreens can be most successfully removed as late as May or June, and that trimming off the branches must be avoided, for the double purpose of preventing the exudation of the gum, and keeping the trunk from the action of the sun. Trees of any kind, and evergreens in particular, when taken from a thick forest, are apt to have the bark burnt or injured by the direct rays of the sun, and close trimming at first, has a tendency to increase the evil. Evergreens are usually long lived, the cypress and the yew furnishing some of

the greatest examples of longevity on record in the history of trees.

EXCRETIONS. Plants take up various substances from the earth. Some are intended to remain permanently; some are retained for use at some other time; and a third class are thrown off as superfluous, or noxious. It is this last class to which the term of excretion is applied. It was conjectured by De Candolle, that the superfluous matter in plants was thrown off by the roots; and this conjecture would seem to have been rendered probable, particularly in those plants that ripen their seeds, by the experiments of Macaire. These were made on a variety of plants, such as the French bean, and common cabbage, and while the fact of excretion was established, it was also proved that the process was more active at night than in the day. The roots of the plant, experimented upon, after being carefully washed, were divided into two parts, one of which was placed in a diluted solution of some substance, as acetate of lead, lime water, or muriate of soda, and the other in a vessel of pure water. After remaining in this situation several days, the water was examined, and it was found that the substance taken from the other vessel and rejected by the plant, had, in every instance been more or less of it deposited in the pure water vessel. Admitting the fact of such excretion to be fully established, it would seem to explain many things connected with agriculture most satisfactorily, that have hitherto been very obscure, and furnish new arguments in favor of the improved system founded on a rotation of crops. All the rejected substances must be unfavorable to the growth or nutrition of the plant, and as these must continue to accumulate in the soil so long as the particular plant is cultivated, the unfitness of the soil for that plant is constantly increasing, until it will not produce it at all. This theory is found in most instances to agree with the fact. Experience shows that repeated croppings of the same vegetable more rapidly exhaust and render land unproductive than the same number of crops where a rotation is observed. It has hence been inferred, that the excretion which was injurious to the parent plant, and all of the same kind, was harmless to plants of a different species; or in other words that the soil impregnated with the excretions of wheat to such a degree that that plant could no longer succeed, would be found good for barley, corn or potatoes. As, however, the theory of a specific food of plants explains these facts equally well, it would seem that more experiments were needed before the noxious nature of the excretions of plants could be fully admitted.

EXOGENOUS. (See Endogenous.)

EXTRACT. The vegetable extract of Davy, the *humus* of the German chemists, and the *geine* of Hitchcock and Dana, do not appear to differ materially from each other, as all understand by these terms that part of the vegetable which being soluble has been used for nutriment and can be again used for that purpose. When extracted from plants, it has been considered as determining their nutritive power; but we think that the results obtained from experience in feeding animals on the several plants commonly cultivated, do not correspond with those deduced from chemical analysis; a difference probably resulting from the imperfect manner in which chemical analysis is carried on in the laboratory compared with the same operation in the stomach of the living animal. That the productive power of any soil depends in a great measure on the quantity of vegetable extract, or *geine*, it contains, is very clear, since on this must the plant nearly rely for nutrition. Furnished to plants in too great quantities, or in a concentrated form, it is injurious, and is usually found in soils only in limited amount. Saussure was one of the first to make any experiments with any degree of accuracy to determine this quantity. He filled a vessel with the richest mould or turf he could procure, and saturated it with rain water. After five days the water was pressed out; 10,000 parts by weight, filtered and evaporated to dryness, gave 26 parts of extract; and another experiment similarly conducted on earth from a well cultivated corn field, in 10,000 parts yielded four parts of extract. When treated with alkali or with the salts of lime, greater quantities of extract are yielded than when water alone is used; and hence the nutritive power of any soil must be estimated by the solubility of the *humus* or *geine* contained in it, or the materials capable of effecting such solution. Thus the analysis of soils shows that those containing *geine*, or vegetable extract, and also some of the salts of lime, are the most productive; and explains why ashes or other alkalis act with benefit on lands cultivated, since such usually contain more or less insoluble extract, but which is by the alkali rendered soluble and available to the nutrition of plants.

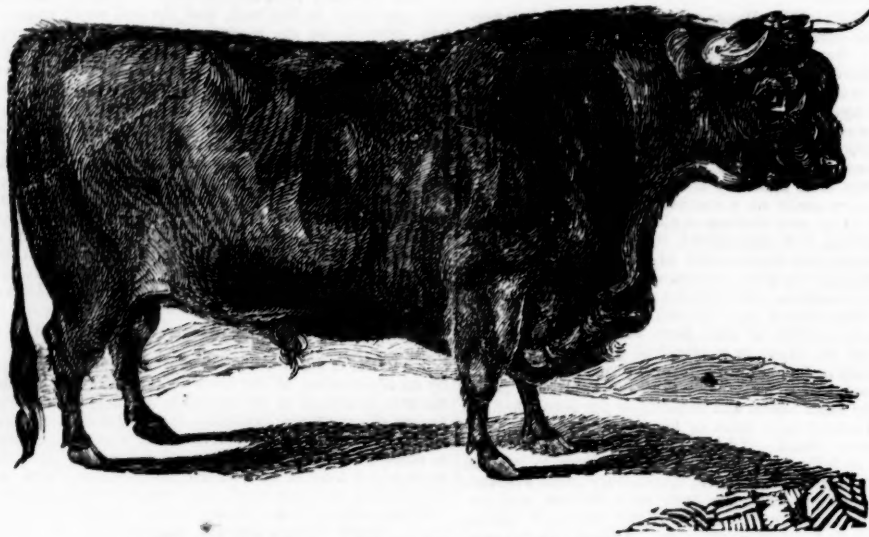
FALLOW. In the best cultivated districts of England and Belgium, what is called a fallow is a portion of land plowed immediately after the crop is removed in autumn, and is frequently, as need requires, plowed, harrowed, and otherwise made fine, until the time of sowing arrives in the following year. It is thus for near twelve months in a state of movement and aeration. The result is, the land is thoroughly freed from the roots of weeds; that the seeds of weeds thus being made to germinate are destroyed; and the eggs of insects being exposed, and the larvae being without roots or plants to feed upon, must, the most of them, perish. The land is also thoroughly pulverized, and the several parts well mixed together, inequalities removed, and the stones loosened for picking out. The great advantage, however, in such thorough fallowing is found in the com-

plete aeration or exposure to atmospheric influence every part receives, by which valuable chemical changes are produced in the soil, and the soil made warmer and more fit for the reception of seed and the production of a crop. But in a large part of every country, and particularly in this, a fallow is a piece of land intended for a crop of wheat, which is sown as long as possible in the spring, broken up perhaps in June, plowed and harrowed once or twice in the course of the summer, and the seed sown and harrowed in in autumn. In this process most of the advantages alluded to above are lost; few weeds or insects are killed; the soil is not made fine or sufficiently warmed and aerated; and it is not surprising that prejudice should have been excited against fallowing by such a half way course. Fallowing is doubtless the most effectual mode of cleaning land, and where it is infested with noxious weeds, such as the Canada thistle, Johnswort, &c. repeated plowings, or thorough fallowing, is the only mode that can be depended upon, to fit it for a crop.

FARCY. This is a disease of the horse, occasioned by an obstruction of the absorbents of the skin. The earliest indication of the disease in most cases, previous to loss of appetite or drooping, is the appearance of little tumors called by the veterinarian, *Farcy buds*, close to some of the veins, following their course, and connected by a kind of cord called *corded veins*. The increase of these buds mark the progress of the disease—the tumors break and become ulcers, healed with difficulty; larger tumors appear; sinuses form in all directions; glands speedily appear; and death terminates the life and sufferings of the animal together. Farcy, like glanders, springs from infection, or from bad management. It is very prevalent in some parts of the country, and wherever it appears, should be treated as a contagious disease of the worst kind; for though the matter of farcy must be applied directly, yet as all horses are fond of playing and biting, or rubbing against each other, one infected beast will most certainly communicate it to many. Instances have occurred in which fatal farcy has been given by a scratch from a curry comb that had been used on a diseased horse. Glanders and farcy are nearly allied, and in bad cases frequently appear in the same horse. The treatment for this disease must vary with the form it assumes. In its first stages cooling and mild physic is beneficial; when the tumors form, they require to be cauterized by an iron at a dull red heat, and if they heal kindly, the danger cannot be considered as great. If they form ulcers, and the constitution becomes tainted, more decisive measures must be resorted to. Corrosive sublimate in doses of ten grains is found one of the best of alteratives, when mixed with two drachms of gentian and one of ginger, repeated morning and evening; but in all violent cases the experienced veterinarian should be called to prescribe, and even then it will frequently terminate fatally.

FARMER. FARMING. It is the remark in substance of the celebrated Von Thaeer, "that the man who expects to succeed as a farmer should unite energy and activity to reflection, to experience, and to all necessary knowledge." The experience of the present time proves that in none of the occupations of life is a more varied and extensive knowledge required, than in that of agriculture. To be a thorough farmer, and to be able to manage the business of farming in the best manner, an acquaintance with the most of the natural and chemical sciences is not only desirable, but indispensable. The farmer lives in a grand laboratory; and he should be able to aid or control many of the operations that are continually going on around him. To do this he must understand the nature of the processes required. Insects, plants, and animals are continually before him, and the habits of one, the structure and qualities of another, and the physiology of the third, should be known, to avoid damage and secure profit. He must have an inclination for the profession; and if he has been brought up to the observation and practice of farming, he will be more likely to succeed, provided the basis of necessary knowledge has been laid broad and deep. Farming, too long has been considered an occupation fit only for those who were good for nothing else; and the odium which rested on the English serf of the feudal ages, and which attaches to the ignorant boor of Russia or Poland, is not entirely done away from the minds of many when they think of the cultivation of the soil. Times have changed and farmers and farming have changed with them. The most honorable, the most useful, the most independent of men, is the well informed farmer, who cultivates his own soil, and enjoys the advantages that health, competence, and intelligence, are sure to bestow. This is not the place to lay down rules for the choice or management of a farm; indeed none except such as are very general can be given; and for these, recourse must be had to works devoted to such topics, or to the agricultural publications of the day.

ASIATIC FAIR.—The Fair of St. Onoufree which lasts four weeks had a numerous attendance in 1840. 30,000 wild horses were brought in from the plains of Tartary. 30,000 cattle, 100,000 sheep, 10,000 swine, and 10,000 horses of the best breeds were also collected. Horse racing was the great amusement; a Circassian horse gained a race of six French leagues, winning a stake of 500 ducats, and all the twelve horses which were run against him.



MR. GRANT'S WEST HIGHLAND BULL.—[Fig. 3.]

FOREIGN NOTICES.

West Highland Cattle.

WE have the pleasure of heading our Foreign Notices this month, with a portrait of a superior specimen of the West Highland breed of cattle, taken from the London Farmer's Magazine for December. The subject is a West Highland Bull, owned by Mr. Grant of Ruthven, Banffshire, Scotland, to which was awarded the first prize of 15 sovereigns as the best bull of the breed exhibited at the great meeting of the Highland Agricultural Society at Aberdeen in October last. Of this breed, Prof. Low, in his Illustrations, says:—"The finest and largest of the native cattle of the Highlands are bred in Argyleshire and the neighboring Islands. This character they owe to the greater development of their forms, to the superior herbage of the Western coasts, but in a great degree likewise to the superior care bestowed in breeding. After the middle of last century, ARCHIBALD, DUKE OF ARGYLE, a worthy and patriotic individual, bestowed considerable attention in improving the cattle of the district surrounding his own seat of Inverary; and more recently, numerous gentlemen of the Western Highlands have devoted the most sedulous attention to the improvement of this breed. On these accounts, the variety of the Western Highlands is usually referred to as the model of the breed. It is well known to all breeders, that a certain class of external characters indicates a disposition to arrive at an early maturity of bone and muscle, and to become easily fat. The most essential of these characters are, a large cylindrical body, dependent upon the greater curvature of the ribs, a body large with relation to the limbs, or, in other words, limbs short with relation to the body, a broad expanded chest, a skin soft to the touch and expansile, a relative smallness of the bones, and an absence of coarseness in the extremities. In certain breeds of the lower countries, these characters may be developed to a high degree; but in a country of mountains and heaths, with a cold, humid, ungenial climate, there must be combined with these a set of characters indicative of that hardness of constitution, without which the animals would be unsuited to the condition in which they are placed. That extreme delicacy of form which can be easily communicated by breeding must be avoided. The hair, while it is silky, unctuous, and free from harshness, should be abundant and curling; the neck should be strong and muscular; the forehead rather broad; and the nose, from the eyes to the muzzle, short; a dewlap should exist as a character of the breed; the eyes should be prominent and clear; the horns should be of good length, without approaching to the coarseness of the long-horns of the lower country, spreading and tipped with black. Now, in the genuine West Highlanders, we shall find such a combination of these characters, as to show them to be well fitted to the country in which they are reared. Their limbs are short, though muscular, their chests wide and deep, their ribs well arched, and their backs as straight as in any other breed. The neck indeed, and dewlap, seem somewhat coarse in the bull, but these are characters indicative of their mountain state; and almost all their other points are what breeders would term good. They are of various colors. A disposition exists in the breeders of the Highlands to cultivate the black color, as conceiving it to be more indicative of hardness; and hence the greater number of the cattle of the Highlands are black. The cows of this breed, like those of many alpine districts, are deficient in the power of yielding milk. The milk they give is rich in cream, but it is in small quantity; and they very quickly tend to run dry."

SMITHFIELD MARKET.—The supplies for this market for November, consisted of 15,920 beasts; 120,940 sheep; 790 calves, and 4,340 hogs.

Herefords vs. Short Horns.

WE find in the London Farmer's Magazine for December, a challenge from JOHN PRICE, Esq. of Poole House, Upton-upon-Severn, "to all breeders of cattle in England," in which he says, "I am willing to show at any time before the end of the month next ensuing, for any sum not exceeding 100l., nor less than 25l., a bull, and twenty regular breeding in-calf cows, (Herefords,) all bred by myself, against any bull and a similar number of cows, of any sort that have been bred by, and are now in the possession of any breeder of cattle in the United Kingdom."

From a letter to Mr. Price, in reply to this challenge, by THOMAS BATES, Esq. of Kirkleavington, we make the following extract. Mr. Bates says:—"I write to say, that on principle I cannot be induced to gamble, but if your object be the investigation of the merits of different breeds of cattle, &c., I am ready to meet such investigation, and show you my herd of Short Horns, and to any others who you may bring with you for that purpose, and I shall then accompany you and them, to view your herd of Herefords. Such investigations may prove of the greatest benefit, not only to those who make them, but their report, candidly written down, and inserted in any public documents, may have the most beneficial effect for the public benefit. I visited Hereford above fifty years ago, and was then and continue still an admirer of the best variety of cattle (Herefords). But I consider now, and have for above forty years been convinced, that the very best Short Horns—which are only a few—are capable of improving all other breeds of cattle in the United Kingdom, as well as the ordinary Short Horns which are far from a good breed, and inferior to the Herefords, Devons, and others. I have at present two red twin year old bulls, out of the dam of Duke of Northumberland, which on inspecting, you may not think unworthy to be put to your herd of Herefords for one season, to give you an opportunity of testing the merits of this cross-breed. In my opinion, they would prove an invaluable cross with the best Herefords—increased the growth of the Herefords, and at an earlier age be fit for the butcher, with a less consumption of food, and quality of beef unimpaired; and also give that breed an increased milking quality—both in quantity of milk and richness—yielding more butter."

Mr. Price replies to Mr. Bates that the bad state of his health prevented his accepting his invitation to visit him, and adds:—"I have myself tried many crosses in breeding both cattle and sheep, and have witnessed the result of such trials made by others, all of which have signally failed where the object has been to obtain more size and weight by using large male animals with females of smaller dimensions. I stated that I had formerly seen what were then considered to be the best sort of Short Horns in existence, and latterly, among others, those of Lord Spencer, with whom I had the pleasure to spend a few days at Wiseton, three years ago, yet that I had never seen any thing to shake my belief that Hereford cattle would pay more money for the food they consumed, than any other breed with which I was acquainted. My desire has long been, and still is, to endeavor by all practicable means to ascertain which is the best description of cattle for both breeder and feeder, that is, which sort will pay the most money for the food they consume. I have repeatedly made public my willingness to find cattle to test this point with other sorts in the way I think best, viz., by keeping together and feeding in the way usually adopted by graziers, some animals of each breed, with this proviso, that the quantity of food consumed by each sort should be as nearly as possible ascertained."

In reply to this, Mr. Bates says, that "Whenever Mr. Price's health admits of it, if he will state why, on the true principles of breeding, it is wrong to breed from a large male and a small female, I am ready to meet him, and prove the contrary by incontrovertible facts."

The Highland Society's Cattle Show.

THE great meeting of this Society for 1840, was held at Aberdeen on the 7th, 8th and 9th days of October the detailed proceedings of which occupy nearly the whole of the Aberdeen Journal of the ensuing week. It was better attended and went off with greater spirit than any previous meeting of the Society. The exhibition of live stock exceeded any which has before taken place in Scotland. Premiums to a large amount, varying from \$5 to \$120, were awarded for the best cattle, horses, sheep, swine, seeds, implements, &c. Above 10,000 persons visited the show yards, the receipt for tickets amounting to nearly \$2,500; and about 1600 persons were present at the great dinner in the pavilion, beside which there was a temperance dinner at which about 1200 were present. At the dinners several short practical essays were read by persons who had been appointed for that purpose, and a great number of speeches made, which were received with great applause, and the grand display was terminated by a ball, that was attended by about 400 gentlemen and ladies.

SALE OF SHORT HORNS.—A sale of Short Horns, belonging to the Messrs. Dodds, of Hart-Warren, took place the last of October, at which 14 cows were sold at an average price of 59 guineas—5 two year old heifers at an average of 47½ guineas—5 yearlings at 32½ guineas average each—4 bulls at 44 guineas average each—11 calves, at 36½ guineas average each; being an average on the whole lot of 48l. 11s. each. Among the purchasers were Messrs. Whitaker, Paley, Jaques, and other celebrated breeders.

GREAT WONDER.—The Aberdeen Journal of Oct. 14, 1840, says, "there is to be seen in that city, at 'Cruikshank's Stables, 8 Schoolhill, a *Lusus Nature*, half-deer and half-cow. Its eyes are large, full, and bright, exactly like those of a deer; so are its legs, tail, and head. This singular animal was calved at Marcellie, in the parish of Rafford. Its dam was a cow of the common breed of the country, its sire a deer."

PERFORMANCE OF AN ARAB HORSE.—Capt. Horne of the Indian Army at Madras, says a Bengal paper, had a horse of great power, called Jumping Jemmy, which for a wager of 5,000 rupees (\$2,000), he rode in July last, 400 miles in five days. The wager was won with ease, both man and horse at the close, being perfectly fresh and in good spirits. Bets ran high against the performance, for though few doubted the powers of the horse, as these were known to be extraordinary, yet few believed that Capt. Horne could accomplish his part of the undertaking.

GREAT OATS.—We copy the following from the Glasgow Herald:—"We were yesterday shown what was literally a sheaf of potato oats, the produce of two pickles, (or seeds.) To the one is attached 31 vigorous stalks, to the other, 25; the first bearing 4,000 pickles, or giving a return of four thousand fold, and the second bearing 3,200 pickles. The soil is a newly taken in moss, has been slightly manured, and this is the virgin crop. It is expected that it will return not much less than 200 bushels per acre, or more than three times the bulk of an average crop."

USEFUL RECEIPTS.

REMEDY CALLED CURE ALL.—1 pint of strong spirits of wine, 2 drachms of Alkanet root, let this stand 2 days; then add 1 drachm of camphor, and strain through muslin; then add 2 drachms of opium, 8 drachms of origanum, and 2 drachms of spirits of turpentine. It is good for cuts, green wounds, cholic, pains in the stomach, &c. for pain in the ear, drop it on wool and apply it; for internal complaints take 20 or 30 drops on sugar.

COLIC IN HORSES.—Take 1 oz. of tincture of rhubarb, ½ oz. of laudanum; 1 oz. spirits of nitre, and half a pint of warm beer. Mix well in a bottle, and turn down the staggers.

BLIND STAGGERS IN SHEEP.—Half a pint of hogs lard melted and poured down a sheep will cure the blind staggers in ten minutes.

REMEDY FOR KIDNEY WORM.—I cured swine of the disease called "kidney worm," by making an incision with an knife, on each side of the back bone, and applying spirits of turpentine to the wounds and along the small of the back. It may also be cured by giving red pepper in their food; taken in season, it readily yields to treatment.

CURE FOR HOOF-AIL.—Conversing with a farmer of this vicinity, Mr. Clark, I learned from him that this disease can be cured by throwing the animal, and drawing a rough rope forcibly between the hoofs until the foot is thoroughly cleansed, when an application of spirits of turpentine should be made, and the cure is complete. I give the remedy as I heard it, having never seen it tried.

It is expected that in transmitting to us such remedies as are considered valuable to the public, none will be offered which the writers do not know from personal experience or observation, to possess the properties ascribed to them. We have the testimony of many farmers that this department of our paper has already been of very great service, and it is our wish to insert nothing the value of which is in the least doubtful.

PROLIFIC SOW.—Mr. G. Bancroft of Reading, Mass., has a sow which in about 13 months produced him fifty-three pigs at three litters; or eighteen pigs in Sept. 1839, seventeen in April, 1840, and eighteen in 1840.



"I know of no pursuit in which more real or important services can be rendered to any country, than by improving its Agriculture."—WASHINGTON.

1841.

"Yes, the year is growing old,
And his eye is pale and bleared!
Death, with frosty hand and cold,
Plucks the old man by the beard,
Sorely, sorely!"

The leaves are falling, falling,
Solemnly and slow;
Caw! caw! the rooks are calling,
It is a sound of woe,
A sound of woe!"

THE year Eighteen Hundred and Forty, with its bustling scenes, with its hopes and fears, with its good and evil, has passed away! Its dead are numbered—its incidents are registered—its bearing for weal or woe on the destinies of our race is decided. It is now for every one—the Christian, the philanthropist, as well as the business man, to "strike the balance" of the departed year, and to ask himself, "what is my relative position to that occupied by me at the close of 1839?—what have I achieved?—where have I erred?—how shall I add to the first—how retrieve the last?"

What has been achieved by the agriculturist? What are the "signs of promise?"—So far as the products of industry are concerned, the "balance" is in his favor. A beneficent Providence has filled our granaries to overflowing. Throughout all of our broad and diversified country, extending over about twenty-five degrees of latitude, scarcely a crop has failed, except in small districts and to a limited extent. But this does not answer all the question. Those products which afford aliment to man, though the proximate object and reward of industry, were not all that the agriculturist of 1840 was called upon to labor for. There was a higher and nobler field for him to plow, to sow, and to reap. He was called upon to lend his efforts, to contribute his mite, toward the moral and social elevation of his calling.

The Roman, in the better days of his country, knew something of the dignity of labor, but in the loag darkness of Gothic night which followed, war and the chase were the only pursuits supposed to befit those of "gentle blood." In other words, butchery and rapine, during a portion of the time, and the pursuit of a hare or deer, with hounds and horns and troops of menials, during the remainder, were supposed to be the only occupations becoming the "high born and noble." The tiller of the soil was a serf—a bondsman. The Feudal Age, with its barbaric pomp, has passed away. The plow has passed over the mouldering relics of baronial pride. The cultivator of the soil is no longer a beast of burden; his occupation has risen from a mere handicraft to a profession calling for the exercise of talents and the application of scientific principles—but notwithstanding all this, he has not yet attained to the true relative dignity of his station among his fellow men.

Among the privileged orders of the old world, manual labor is still regarded as a degradation. In our own country, though the feeling does not prevail to the same extent, it is easy to discover traces of the same absurd and unmanly prejudice. How rarely do we witness an instance of a professional man or a merchant voluntarily educating his children to honest toil—to become producers instead of consumers? And worse than this, the farmer himself, false to the dignity of his calling, not unfrequently exhibits an itching desire to save his children from a life of labor! This diminution of producers and increase of consumers, is one of the marked causes of the disasters which have fallen on our nation. In this mania to escape labor, every profession and every pursuit not requiring bodily toil, has been overstocked. What is more common than to witness in some of our smallest villages, which should scarcely support two lawyers, a score of attorneys, rendered greedy by want, and obliged to promote litigation, to obtain their bread! "Two doctors riding on one horse," has passed into a proverb. Hundreds of broken young merchants, many of them the sons of farmers, and who started life with a capital, which, united with industry, would have made them prosperous and independent farmers, are now eating the bitter bread of poverty. Politics too, supports its class of non-producers, and its avenues to preferment are choked with crowds of eager votaries, four-fifths of whom must necessarily be disappointed;—and even the fortunate few, at the first giration of the political wheel, are cast upon the world—out of business—and with habits acquired which would render business irksome, and connect the idea of manual labor with that of intolerable degradation. How many such men might exclaim in the spirit of Woolsey—

"Had I but served myself with half the zeal
I served my party, I should not, in mine age,
Have been left naked to mine enemies."

There is another numerous class of non-producers, not to be omitted in this catalogue,—the speculators—those lords of paper domains—those rare architects, who, like the Genii of Arabian tales, built up in a sin-

gle night gorgeous cities in the distant wilderness—those alchemists who beat them of old, for they discovered that wondrous elixir (found to consist of avarice and credulity in equal parts) which transmuted every thing to gold—Bangor pine trees, and Rocky Mountain "city lots!"

But their gold,
"Like to the apples on the Dead Sea's shore,
All ashes to the taste,"—

has proved but a sorry counterfeit!

It is not my design to invoke prejudice against the learned professions, or against any honest calling. The merchant is a necessary instrument of the farmer. He works for the farmer and he receives his pay. He receives his products or the avails of them—transports them to distant markets, and brings him back the products of other countries and climes. The lawyer is a necessary evil so long as vice and perversity shall continue to exist in the world. He is as necessary to repel the encroachments of vicious and quarrelsome men, as the dog and the rifle are to drive off the assaults of noxious beasts and vermin. We cannot dispense with the leech until the "ills that flesh is heir to" have become extinct before that "physical perfectibility of the human species," whose possibility is contended for by Doct. Graham! It is to be feared, however, that the time of its accomplishment is yet far distant!

Though these and various other classes of non-producers are to be tolerated, nay respected, where they work worthily in their vocation—though they are to be placed on a social equality with any other class of citizens, I ask are they to be looked up to as a superior or privileged caste, by the producers? Shame on the thought! Does any farmer think he is placing his children in a "higher rank," "making gentlemen" of them, by making them lawyers, doctors, or merchants? Shame on his abject soul! Does any young son of the soil court and repine after that patent of gentility which is conferred by the tailor, the jeweller, and the boot-maker, on the sons of idleness? Away with such a serf in spirit!—let him begone to his idols!

And yet it must be confessed with sorrow and shame, there are farmers and farmers' sons who entertain such sentiments as these in relation to their own calling. The very name of a profession dazzles their bewildered senses, and commands their respect, as stars, ribands, and other insignia of privileged rank receive the homage of obsequious vassals in the old world. Who have the majority, consisting as it always must of the producers, ever delighted to honor? Do they select the tried and trusty of their own class—the men whom they know, and in whose judgment they can confide? In periods of great national danger, such men will be called to the helm. Every student of history is aware that a large majority of the warriors and statesmen of the Revolution were from the producing classes—were, before they were called upon to relinquish the implements of industry, laboring men. But look into the Legislature of this and other States for the last fifty years, and what proportion of producers do we find? Is it contended that lawyers are the best qualified to form laws? Look at the cumbrous details of chancery practice—the jarring systems of law and equity,* (as if law and equity might with propriety differ!)—the annual acts explanatory of other acts which were wrought up with so much "legal skill," that even their own framers could not understand them!—the multitude of laws "which no man can number," and which are constantly accumulating—look at these things and then tell us if it is necessary to fill our Legislature with lawyers, because of their presumptive knowledge in forming laws? Is it contended that there is not sufficient talent to be found in the laboring classes? I answer in the eloquent language of Channing:—"Real greatness has nothing to do with a man's sphere. It does not lie in the magnitude of his outward agency, in the extent of the effect which he produces."

A man brought up to an obscure trade, and hemmed in by the wants of a growing family, may, in his narrow sphere, perceive more clearly, discriminate more keenly, weigh evidence more wisely, seize on the right means more decisively, and have more presence of mind in difficulty, than another who has accumulated vast stores of knowledge by laborious study, and he has more of intellectual greatness. Many a man, who has gone but a few miles from home, understands human nature better, detects motives and weighs character more sagaciously than another who has traveled over the known world and made a name by his reports of different countries."

I would not preach up a crusade against the legal or

* Many of the States, have to a great extent, and others almost entirely, done away with this practical absurdity, as it cannot but be regarded, notwithstanding the ingenious and extremely plausible arguments which every well read lawyer can offer in its support. In some of the States, as New-York, Virginia, South Carolina, and Michigan, the court of chancery is a distinct tribunal, and in others, as Connecticut, New-Jersey, Maryland, &c., courts of law possess ample equity jurisdiction. The contrary is the case in Massachusetts, Pennsylvania, Maine, Rhode Island, &c. Louisiana has, on the other hand, adopted a simple, concise, and uniform code, based on the Civil Law. The increasing intelligence of the times must soon demand a similar reform in the other States.

† For instance, the Non-Imprisonment Act, written by one of our most eminent and able jurists, was supposed to be so obscure in its provisions, as to require an explanatory commentary from the original drafter of the bill. The commentary was accordingly written—but lo! its correctness as an explanation of the true meaning and intent of the law, is denied by a great portion of the profession, and has been repeatedly decided against by the Supreme Court!

any other profession. I would not drag them down, but I would raise the producer up—raise him up in his own estimation. I would sound a trumpet peal in his ear to arise and assert the dignity of his calling. Man was formed to labor and to be useful. The primal curse of labor was a blessing in disguise. There should be no drones in the great hive of humanity. Labor ennoble its followers. The farmer as he goes forth in his fields to converse with nature and nature's God, feels his soul dilate and expand under the benign influences about him. The bright sun, the refreshing breeze, the genial shower, are all blessings from a parent's hand. As he casts his eye upon the distant prospect, glittering in the auroral light of spring, or fading into the sober hues of autumn, his feelings harmonize with the outward agencies which surround him. He stands as it were in the visible presence of his Creator, and passion and selfishness are rebuked. There is no hum of excited crowds to drown the small still voice of reason and conscience. He stands erect in the conscious dignity of a man,—honest toil hath given him the nerves and physical vigor of a man—reason, reflection, conscience, and brotherly love hath expanded his soul to the dimensions of that of a man.

The true farmer is a philanthropist. He labors, not only to provide for his own wants, and wants of his family, but he is urged by a constant desire to leave the world better and more beautiful than he found it—to add to the stock of human comforts, and render them accessible to the poor and the lowly. Does that strong love of rural life, which characterizes some of the most elevated men of our time, spring from the pleasure experienced in the mere act of plowing or reaping fields, or the rearing of bullocks and swine—or because they deem those avocations the easiest method, in popular parlance, of "getting a living?" Are such the inducements which have led educated and intelligent men to abandon professions which are the almost exclusive avenues to honor and distinction, for the rustic avocations of the farm? I answer indignantly, no! They have preferred usefulness to fame. To make two blades of grass or two spears of grain grow where but one grew before, has been pronounced an achievement beyond that of conquerors—and so it is. The warrior desolates the earth and fills it with woe, the agriculturist whose object it is to improve and advance his calling, increases its fertility, and thus multiplies the sources of comfort and subsistence to his fellow men. He clothes the needy, and gives bread to the hungry, by rendering these things abundant and accessible. Every man who fertilizes one barren spot of earth, who reclaims one unwholesome swamp, or who discovers one improved process for cultivating the earth or increasing its products, has rendered a direct, tangible, and important benefit to his fellow men. He has not lived in vain, for he has rendered himself useful. He is a philanthropist.

Lord Townsend, who received the appellation of Turnep Townsend from the wits of a licentious Court, for having introduced the culture of that useful vegetable into England, has conferred a more lasting benefit on his country than all the popinjays who have spread their butterfly wings in the sunshine of Court from the days of William the Conqueror to those of Queen Victoria. Was it Doctor Johnson who remarked of some one sneeringly, that his conversation savored of bullocks? Yet the world would have been better off without a Johnson, than without a Colling or a Bakewell! Every generation produces its literary great, but not every generation nor every age produces men capable of originating great and signal improvements in those important departments of human industry which give subsistence to millions. Why should the breeder be sneered at? Is not the artist admired and caressed? And what is the breeder but an artist in the great studio of nature? The one chisels the shapeless marble into forms of beauty—the other moulds flesh and blood, and gives beauty and value to the unsightly and worthless. Is the latter pursuit then unworthy of a gentleman and man of taste? Is he who strives to beautify and adorn this fair world, instead of a gallery or a palace—he who labors to restore animated nature to her forms of primal beauty, engaged in a vulgar or tasteless pursuit? It strikes me on the contrary that no occupation is more congenial to a pure and elevated taste. No man more than the agriculturist has constantly presented before him images of inward and outward beauty. Books and the treasures of art are as accessible to him as to others,—nature and his fellow man wear for him their loveliest aspect. The merchant is brought constantly in collision with venality and avarice—the politician with selfishness and ambition, and both learn to disesteem their fellow men. The physician spends his life amid ulcerous sores, the pangs and the moanings of decaying humanity, and nature must ever wear to him the aspect of a great charnel house. The lawyer is called upon to probe the yet darker ulcers of the soul. His eye constantly rests upon guilt, and his ear must drink in its polluted tale, Envy, malice, hate, avarice, and all the blacker passions, assuming more specious names, claim him as their champion. If he resist, as some have nobly resisted, he must yet meet and combat them: he must live in their polluted atmosphere; he must feel that they are the elements of his subsistence; he must feel that he lives on and out of the contention of his fellow men. The occupation of the agriculturist does not of itself necessarily bring him in contact, or but slightly, with man's moral or physical infirmities. The world is not to him a great "whited sepulchre." Its sunny smile

is not a mask hiding the features of vice and woe. A demon scowls not forth on him from beneath every flower that throws beauty and perfume over the path of life. He rejoices that he is a man—he feels a fraternal love for the great brotherhood of man.

And shall the agriculturist "look up" to men, who, if not his inferiors, are in no respect his superiors? Shall his sons flee away into other occupations that they "may be gentlemen?" A better day, I trust, is dawning. The time will soon come, if it has not now come, when no talents however great, and no education however finished, will be supposed to be "thrown away" when devoted to the improvement of agriculture. Let our agriculturists assert the dignity of their calling, and who dare gainsay it? They are, and ever must be, the most numerous and powerful caste in this great Republic. They can make that power felt whenever an occasion demands it. And has every one who reads this, contributed his individual efforts during the past year, to assert that dignity—to effect "the moral and social elevation of his calling?" If not, the "balance" of 1840 is against him! Let 1841 "retrieve" the "error." *Cortlandville, N. Y. Dec. 1840.* H. S. R.

THE SILK CULTURE.

"Shall we give it up?"

GIVE it up! Why? What reason or cause is there that we should abandon it? "Why, the *morus multicaulis* is down—the trees will not bring any thing—we can hardly give them away—our prospects of getting rich from the raising and sale of the trees are at an end—our golden dreams are vanished!"

Thus absurdly, Messrs. Editors, many in our country probably reason! but none, I trust, who are the true friends of the silk culture—who see no just cause why we should abandon it, or any serious difficulty in the way to discourage them. I am happy to find that your interest in it, and your sense of its importance to our country as a branch of domestic industry, is not diminished; and that you are disposed to place the subject occasionally before your readers, among other topics of interest to our agricultural community. I am willing to contribute my feeble efforts as I have done, to further its interests, though far abler pens than mine, it may find to advocate its cause. My confidence in it, as a source of individual and national wealth, and in its ultimate success, remains unshaken; though untoward events the past year have thrown a cloud over it, and obscured in a measure its prospects discouraged and disheartened some who had turned their attention to it, and operated to retard its progress. These events were the general depression in the money market, and consequent embarrassment in almost every branch of business, and the bursting of the bubble of the mulberry speculation. Many had embarked in what was termed "the silk culture," solely with a view to the sale of the trees, without the least idea or intention of raising silk, and hoped thereby suddenly to reap that golden harvest which others had reaped; these may justly conclude to "give it up;" that is, give up the raising and sale of the trees for speculation. Others had imprudently invested large sums or contracted liabilities to a considerable amount in the purchase of trees at a high price, for the purpose of raising silk with the hope of reimbursing themselves by the sale of a part of the trees; but by the sudden fall of the price and destruction of the market, have sustained embarrassments and loss. Some of them, not realizing their expectations, will probably abandon the pursuit. While those who have cautiously, prudently and understandingly gone into it, with the legitimate object of raising silk, will hold on their way; and others, encouraged by their success, now that the trees can be purchased so low, will probably embark in it, not for the purpose of speculation in the trees, but for the sure profits to be derived from the culture of silk. So that although the failure in the mulberry speculation has thrown a temporary cloud over the prospects of the silk culture, and retarded somewhat its progress, ultimate good I think will grow out of it. It has seen its darkest day; that cloud will ere long be dispersed and a brighter sun shine out upon it. I can see nothing in the past or in the present to discourage the true friends of the silk culture; no reason why they should abandon it, but many reasons why they should persevere. Our soil and climate are propitious, the *morus multicaulis* is as valuable now for feeding worms as it ever was, (and I consider it the most valuable, on many accounts, of all the varieties of mulberry which have been introduced into our country;) silk of a most excellent quality, fully equaling the best Italian, has been made, at a handsome profit; a demand exists for the raw material, both in the cocoon and reeled, in our own market, far beyond what can be supplied, at a price which will amply remunerate the grower; and Europe would purchase of us millions of dollars worth for her manufactures annually if we could supply it, and become our debtor, instead of we being a debtor to her for silks annually to the amount of many millions of dollars.

Shame for us, my countrymen! My blood warms in my veins when I think of it. It is a disgrace and reproach to us, which every true American should desire to wipe away, that possessing as we do a country so favorable to the culture of silk as any on which the sun ever shone, with that intelligence and ingenuity and enterprise characteristic of our people, and every facility which we would desire for entering into the silk culture extensively, we will still run in debt to Europe more

than the amount of all our exported bread-stuffs, &c. for the single article of silk. If the blush of shame mantle not on the cheek of the patriot citizen, at the thought of this, I shame for him. What is it that has caused this present distress to our country, in its monetary affairs, and the paralyzing almost of every branch of industry, but our prodigal running in debt to Europe. I pretend not to say how much of our distress may be ascribed to other causes; but I can see enough in this; a course which will ruin any country. Look over our account with Europe; here is one item of twenty millions of dollars a year for silks! which our own people can just as well raise themselves and keep this amount of money in the country; and if they do not see fit to manufacture it, or feel a foolish pride in decorating their persons with the fabrics of foreign work-shops, rather than with those of our own manufactures, then send it to Europe for them to manufacture for us. But in the infancy of their existence our silk manufactures have shown that they can produce an article which our wives and daughters need not be ashamed, but proud to wear; and these manufactures only want a supply of the American raw material, to rival those of Europe; for the want of which they are obliged to use principally the inferior imported raw silk of China. Let us then go to work and raise our own silk. There is many a family among our farmers that might raise from one to ten pounds of silk or more a year by employing the children and a portion of the female labor without abstracting from the other products of the farm or hindering its necessary labors, which would be so much clear gain; and what female is there in our country, whether maid or matron, that would not be proud in saying that the silk dress she wore was the product of her own labor, formed from the material raised with her own hands?

So far as I have been able to learn, success has attended the efforts in raising the silk worm the past season, where there has been proper care and attention bestowed in keeping the eggs, hatching them and tending the worms. Most of the failures of which I have heard, resulted from the eggs being spoiled, not having been properly kept, but exposed to too warm a temperature before they were brought out to be hatched. If thus exposed in the spring and then put into a cold temperature, as in an ice-house, to keep till they are wanted in the summer, when the multicaulis is in full foliage, they are sure to be injured; either their vitality is destroyed, or the worms on hatching come out feeble and sickly, and most of them die, as I can attest from my own experience. Where the eggs have been properly prepared and deposited in an ice-house early in the spring, before exposure to the warmth, and kept till wanted, they have hatched well, and the worms been perfectly healthy.

Of the amount of silk that has been made the past season I have no means of judging; but I apprehend it will be found to be considerable. My information does not extend to distant parts of our country. In the county of Steuben, several individuals have fed more or less worms with success, from two or three to ten thousand or more; and are much gratified with their experiments. In the fore part of August, I visited several cocooneries in Cayuga and Tompkins counties, where they were feeding several hundred thousand worms which did well; and their proprietors spoke in encouraging terms of the business. I saw most beautiful specimens of cocoons at the house of J. H. BOSTWICK, Esq. in Auburn, which were fed in his parlor; and at the cocooneries of Messrs. HAMBLEN & FITCH; also at the cocoonery of Mr. WOODWORTH, in Ithaca, which for the simplicity, order and convenience of its arrangements, cleanliness and healthiness of the worms, exceeded any I had seen. A considerable crop of the large French pea-nut variety, (which the proprietor told me were far the best of all the varieties he had tried, and the only kind he meant to cultivate,) had finished their winding, and a beautiful sight they were; and he had then feeding, a second crop of several hundred thousand of the same variety, attended by two ladies, members of his family. A large bunch of beautiful raw silk was shown me, reeled by Mr. Woodworth himself, as his first attempt upon the Piedmontese Reel, who informed me that there was no difficulty in reeling silk, which with practice he could not easily overcome. He was about introducing an important improvement in feeling, by which nearly the whole labor in cleaning after the worms is saved. Mr. W. would confer a favor upon the public by publishing the result of his experiments the past season; and not he only but others who have fed worms; and I doubt not these results would afford satisfactory evidence that silk may be raised to advantage by our citizens; and that it should engage, as it merits, more of their attention.

The southern and southwestern states will find it for their interest to engage in it; for besides having the advantage over the north of a climate better adapted to the growth of the *morus multicaulis*, and a longer season for feeding the worms, they are urged to it by another consideration which must come home to them, viz: the prospect of a material diminution in the foreign market of a demand for their great staple product, cotton, by the present efforts of the British Government to introduce the culture of cotton into their East India possessions for the supply of their manufactures. Whenever this takes place, (and it is not improbable it will in the course of a few years,) it is plain the south will be under the necessity of introducing some new staple for the profitable employment of their labor and capital: And what, I ask, could they engage in so advantageously as the culture of silk? Besides, large portions of their land

in the older states, have become or are becoming exhausted, worn out and worthless by their system of cropping, which may profitably be devoted to the culture of silk, and even resuscitated by its ameliorating effects upon the soil.

But the northern and middle states too, have a deep interest in the silk culture. There is scarcely any portion of our country where the mulberry in some of its varieties will not flourish and the silk worm thrive. Even in the coldest parts, the *morus multicaulis*, treated as an annual crop, dug up in the fall and buried or put in the cellar, and replanted in the spring like a crop of potatoes, it is confidently believed may be used with great profit in the culture of silk. Where it is desired to have a more hardy tree it may easily be obtained, several excellent varieties of which have of late years been introduced, as the Expansa, the Dandolo, the Brussa, the Alpine, and another which promises to be of extraordinary value, which originated in this country, called "Sharp's New Variety." This mulberry I am convinced is very hardy, is of rapid and luxuriant growth, soon forming a large standard tree, and the foliage is splendid, very little inferior in size to the leaves of the *morus multicaulis*, but thicker and heavier, and said to be superior as food for silk worms. Two scions set by the writer this last season as late as the month of June, grew to the height of 6 to 8 feet. As an ornamental tree as well as for raising silk, I think it will be valuable.

With so many facilities, with thousands of trees in the country, which may now be purchased at a trifling expense, so many inducements to engage us in the cultivation of silk, what is to prevent? "Shall we give it up?" Shall we lose the advantage already gained? No—persevere my fellow countrymen—"Onward, right on!" be your motto; and true to it, success will ultimately crown your efforts. Form not, however, too sanguine expectations of getting rich all at once, that "the golden stream will be quick and violent." The culture of silk, pursued with intelligence, judgment, economy, patience and perseverance, will, I am convinced, yield a sure and ample remuneration to those who engage in it; and will gradually, but certainly, swell the stream of individual and national wealth.

Hammondsport, N. Y. Dec. 16.

W. W. B.

LEGISLATIVE AID TO AGRICULTURE.

MESSRS. GAYLORD & TUCKER—Now that the excitement of politics is over for a long season, would it not be well for the people of the State, and especially the farmers, to turn their attention to their own interests. The season of speculations has gone by, and an increased attention is awakened towards agriculture. Is there not sufficient feeling on the subject to warrant its friends in a general rising in favor of legislative aid? I apprehend we shall have no difficulty in procuring assistance, if we can only be agreed upon what we wish done. Heretofore there has been a vagueness and disagreement among the warmest friends as to the measures proposed, that has prevented any decisive action. Let us ask for but little this year, and in the mean time through your paper, compare notes, and by another year we can have digested some plan which would meet the views of all, to be brought before the legislature at its next session in 1842.

One important object to be gained, is a concert of action over the State, and this can be arrived at no way so well as through county societies. Some course then should be taken, that will have a tendency to bring about the organization of a society in every county in the State. To ensure this, the State must grant us some assistance.

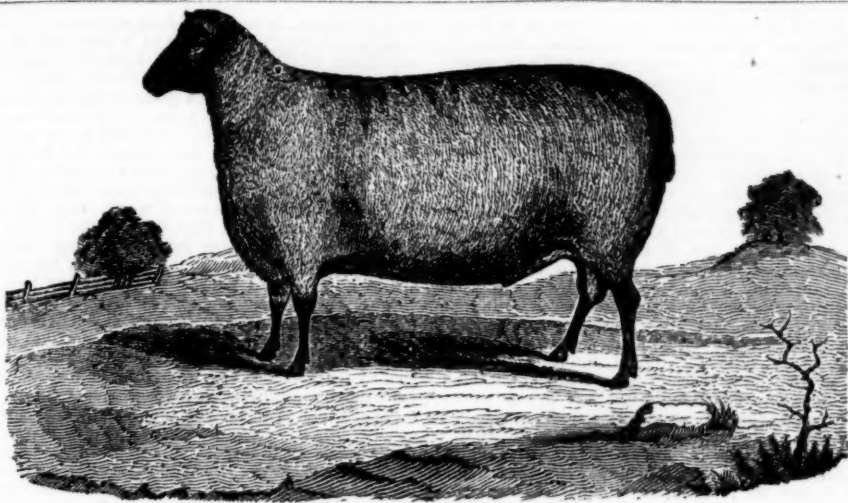
I would suggest that we ask for an appropriation of sixty dollars for each member of Assembly from the county, to the Agricultural Society of the county, as soon as the same is properly organized. Let the treasurer of the Society give a bond to be approved of and lodged with the county treasurer.

From my own experience, I am satisfied we do not require large sums in the commencement. It takes time to get the societies properly organized, and besides, as large sums are not required at first as after two or three years successful operations. We must have a small fund to serve as a nucleus. And the sum named, with what would be received from friends, as well as competitors for premiums, would make a very fair beginning for any society. Let us ask then for that and nothing more, and there can be no doubt but we shall receive it from the legislature without any trouble.

I have seen it suggested that we have a commissioner appointed to travel over the State, &c. With due deference, I would suggest whether we are in a sufficiently forward state to require one at present. Should not a thorough organization be effected before the services of commissioners (for we must have more than one,) could be of much service. Besides, in asking too much, we should lose the whole.

Permit me to make a suggestion to the different societies through the State, which if acted upon, will materially facilitate intercourse among the different officers; Whenever a society is organized, send the names of the principal officers to you, and with the names, their places of residence. Your paper then would become, without any extra trouble, an excellent directory. I assure you such a thing is very much needed, and would be of great benefit.

I hope petitions will be freely circulated, and the farmers with one united voice, ask for aid this winter. And if our demands are reasonable, I feel that we must succeed. *Darien, Dec. 12, 1840.* T. C. PETERS.



SOUTH DOWN BOCK.—(Fig 4)

MESSRS. GAYLORD & TUCKER—I hope you will not think me obtrusive, while I ask the insertion in your invaluable paper of the accompanying cut. It is one of the South Downs I imported in the fall of 1838, which, with several others brought out the year before,—all selected from some of the best flocks in Sussex, England,—now, with their descendants, no doubt make one of the finest flocks to be found in this country. They are, I think, perfection in shape, and entitled to hold the same relative position that improved Short Horns do among cattle and Berkshires among hogs.

Theirs is the celebrated "English mutton," which, with thousands of others having no particular predilection that way, I can testify is not "all stuff." They are in size between the Cotswold and our native sheep, and will weigh in ordinary flesh from 160 to 200 lbs. The one of which this is an engraving, weighs 180 lbs. They are of round, full, and beautiful form, and of great weight for their apparent dimensions, possessed

of extraordinary vigor of constitution, fitting them for great endurance of keep and exposure. In our flock of about 50, I have never known an invalid for an hour, or one low in flesh, though their pasture has often been as short as I have ever known one on which sheep were sustained.

Their wool is about as fine as half blood Merino, and with them I have no doubt would cross to very great advantage, giving the Merinos greater strength of constitution, weight of carcase, and aptitude to fatten.

The Cotswold, of which we have several, I also think very highly of, and in some particulars, among which is weight of carcase and fleece, they are no doubt the South Downs' superiors, but they have been so lately fully described, I will not trespass upon your attention by attempting to do so here.

I am, gentlemen, with all due consideration

Truly yours, E. P. PRENTICE.
Mount-Hope, near Albany, Dec. 21, 1840.

THE HEREFORDS AND SHORT HORNS.

MESSRS. EDITORS CULTIVATOR—I recollect noticing in your paper some time since, a request that those who have any knowledge of the Hereford breed of cattle, would give their opinions of its relative merits compared with the improved Short Horn and other varieties. In Mr. BEMENT's communication, published in the August number, he says he thinks there has been no importation of Herefords excepting by Mr. Clay, Messrs. Corning & Sotham, and himself. This is a mistake. In the year 1825, if my memory serves me aright, the Massachusetts Society for promoting Agriculture, received as a present from Admiral Sir Isaac Coffin, of the Royal Navy, a bull and a cow of the true Hereford breed, selected either by himself or his agent in England. There came also with them, as a present from the same beneficent gentleman, an improved Short Horn cow, (Annabella)—a bull of that breed, (Admiral,) had before been sent.

The Hereford cattle were kept for one or two years in the section of the state where I then resided, on the farm of JOHN PRINCE, Esq. of Roxbury.

The cow never had a calf after coming to this country, and it being supposed that she would never breed, she was slaughtered; but I have been informed that on killing her she was found to be with calf. As to the quality of her beef, I cannot speak, but presume Mr. Prince can give information on this or any other point relating to these cattle. The cow was certainly considered one of the most extraordinary animals for shape and size ever exhibited at the Brighton (Mass.) Cattle shows.

I believe the bull was not patronized to a very great extent while at Roxbury, it not being a stock-growing neighborhood, and he was subsequently taken into the interior of the state, where, if I am not mistaken, he was sold. I saw many of this bull's progeny in the vicinity of where he was first kept, and have owned some of them. They were generally highly esteemed. They made prodigiously powerful and active draught cattle—there was a majesty in their gait, and an elasticity and quickness of movement, which I never saw equalled, and which, together with their beautiful mahogany color and strong constitutions, made them decided favorites with the Yankee teamsters.

For dairy qualities, the progeny of this bull were, as far as my observation extended, an improvement on the stock with which he was crossed. I am aware that the Hereford has not the reputation of a milking race, and though this may be generally correct, it is by no means certain that some grade of that blood, may not be superior milkers. I will mention an instance in support of this idea. Several years ago, some cattle of Bakewell's celebrated breed of Long Horns, called Disleys or Improved Leicesters, were imported to different parts of this country. They were famous for fattening, but not for dairy qualities; yet the half bloods were generally good milkers, and some of them were uncommonly superior in this respect. I know not how to account for this fact, unless on the ground of the con-

stitution of the cross being so much strengthened that they were better able to resist the inclemencies of the weather, and to digest their food more perfectly and make the most of it.

I will here remark that I knew many and owned several of the progeny of the Improved Short Horn bull Admiral, before mentioned as having been presented to the Massachusetts Society by Admiral Coffin, and I have no hesitation in saying, that for the ordinary uses to which cattle are applied in the northern section of our country, I considered the stock of the Hereford bull above alluded to, decidedly preferable.

From 1830 to 1837, I resided in the state of Maine, and my business was the breeding of various kinds of stock. I had never seen any full bred Improved Short Horns, which appeared to possess sufficient hardiness of constitution to adapt them to so rigorous a climate and the hard labor of the yoke to which oxen are there subjected. Accordingly, on commencing operations, I purchased of Hon. JOHN WELLES, of Boston, a bull of a cross between the Hereford and the Improved Short Horn with a slight dash of the Bakewell. This bull was the easiest animal to fatten that I ever saw—was of very perfect symmetry, vigorous and active—and very heavy in proportion to the bone. His weight at six years old, after having been wintered on the coarsest fodder that the farm afforded, was 2000 lbs.

With this bull, I bred from selected cows of various grade: of different families, my object being to manufacture and establish a breed, better adapted than any other, to the soil, climate and purposes of the section of country for which they were intended.

As my stock arrived at an age to have their qualities tested, they gradually got into favor; but as the passion of too many was for stock of enormous size, and mine had been bred wholly with regard to useful properties, I had to wait till their superiority could be proved before their merits were generally admitted. I however took several prizes, on different descriptions of cattle, at the cattle shows of the Kennebec County Agricultural Society. On leaving Maine, I sold some of the best stock which I had bred, to Mr. J. W. HAINES, of Hallowell. I am informed that it is now considered preferable to any stock ever known in that section. Mr. Haines carried several of the highest prizes at the Kennebec shows of '38 and '39—and at the recent show, he took the first on milk cows, with one which was bred by myself—the first on bulls, and the first on heifers, of the same stock.

The recent importations of Herefords by Messrs. CORNING & SOTHAM, of your city, must by all accounts be very valuable. A gentleman from Boston and a good judge of stock, lately passed through here on his return from a tour to the west. He had seen the Herefords above spoken of, and also had just seen the fine herd of Durhams belonging to Mr. Sullivant, near Columbus, as well as much other fine stock. He pronounced the Herefords superior in fineness of bone and symmetry, to any thing he had ever met with.

Cannot some of your distant readers be gratified by

a sight of some of these fine Herefords in the Cultivator. The portrait of Mr. BEMENT's bull Dallimore, is certainly one of the best figures I have ever seen. His death must be a great public as well as individual loss.

The remarks of Mr. A. B. ALLEN, in the October number of the Cultivator, on the working and fattening properties of the Herefords, I have no doubt are correct; neither have I any doubt that wherever strong constitutions are required, and oxen are wanted for the yoke, the Herefords will be preferred to the Improved Short Horns, and perhaps to all other breeds.

Mr. Allen expresses some surprise that the lately imported Herefords have so wide hips and loins, and says the Herefords he had before seen, were narrow at these points. I cannot think the Herefords are generally deficient in this particular. Youatt, in his work on cattle, published under the direction of the British Society for the Diffusion of Useful Knowledge, speaking of the preference given by the Duke of Bedford to the Herefords, after repeated trials with nearly all other breeds in England, after mentioning some objections to the Herefords generally, says of the Duke's cattle, "they retain all the length of quarter, and much of the wideness and roundness of hip and fullness of thigh, which have ever been esteemed the peculiar excellencies of the Herefords. A few of them might in their fore quarters be mistaken for Devonshires; but with a broadness of chime and weight behind, which the Devons have rarely attained."—[page 211.]

But in choosing stock, the grand object should be to obtain the breed best calculated for the particular situation for which it was designed. Each has its peculiar excellencies and defects, and the one which may be best for some locations and purposes, may be worst for others. The great error in public opinion of the present day in regard to all kinds of stock, is the passion for great size. The only correct medium, is, I think, that of your correspondent R., in the August number, that "the only desirable size is where we find the greatest weight in the smallest relative compass."

I had intended to have added a word on the "quake-ry" of some of your neighbors' remarks and advertisements of "thorough bred Berkshire swine, unalloyed by black Siamese," &c. but your correspondent D. of Cambridge, Mass. has shown that matter off in so true a light, that I have but little to offer. In regard to the original color of the Berkshire swine, I will just observe, that in Dickson's Agriculture, a large quarto work published in England some thirty years since, colored engravings of a boar and sow of the Berkshire breed are given. They were both of a reddish brown, with black spots.

What has been the *modus operandi* in the improvement of the Berkshire breed of swine, I will not pretend to say; but I think there cannot be a reasonable doubt that the originals were entirely too coarse; and as has been said by some one, of the Improved Short Horn cattle, unless great care and judgment are constantly used in breeding, they will revert back and bring out the objectionable points of the old stock.

SANFORD HOWARD.

Zanesville, Ohio, Nov. 7, 1840.

To Western Emigrants—No. 3.

First Night on the Prairie.

MESSRS. EDITORS—In my last I proposed to give some account of the manner of making a new settlement. Although the subject is not exactly such an one as is calculated to add to the knowledge of those who are seeking for something new in agriculture, it may be one from which a numerous class of your readers may gather something new to them, and I hope sufficiently interesting to add to their amusement of a long winter evening. And that, you know, is a strong inducement towards causing many to read; and that should always be a prominent object, to make a paper amusing as well as useful,—in fact the two should be constantly blended. The most useful articles are too often too dry to attract the attention of the hard laboring man. An occasional article then, which will amuse as well as instruct, and which will tend to "lighten labor" by adding an hour of enjoyment to the toil-worn laborer, will certainly have answered a good end—such is my present purpose—but if you consider it out of character for your journal, you know how to dispose of it without giving offence to a real friend. But to those who intend to set their faces westward, I think an old settler's experience will be interesting. I will begin with the FIRST NIGHT ON THE PRAIRIE.

It was the last day of October 1834, when I first entered this "arm of the Grand Prairie." It was about noon of a clear delightful day when we emerged from the wood, and for miles around, stretched forth one broad expanse of clear, open land. At that time the whole of this country scarcely showed a sign that the white man had yet been here, except those of my own household. I stood alone, wrapt up in that peculiar sensation that man only feels when beholding a broad rolling prairie for the first time—it is an indescribable delightful feeling. Oh what a rich mine of wealth lay outstretched before me. Some ten miles away to the south-west, the tops of a grove were visible—toward that, onward rolled the wagons, with nothing to impede them—the road was broad—the grass (which some think grows so high as to impede travel,) only a few inches long, except in creeks and wet places. Just before sundown we reach-

ed the grove and pitched our tent by the side of a spring. What could exceed the beauty of this spot? Why should we seek farther? Here is every thing to indicate a healthy location, which should always influence the new settler. And here let me caution the emigrant always to beware locating upon the banks of streams. After enjoying such a night of rest as can only be enjoyed after such a day, the morning helped to confirm us that here should be our resting place. In a few hours the grove resounded with the blows of the axe, and in four days we moved into our "new house."

"Dear me," do I hear some parlor-loving wife of an expectant emigrant say, "where did you get your boards to build it with?" My good lady, we were 40 miles from a saw-mill, and of course the house was built and finished off complete without a sawed board about it, and but very few nails, nor a brick or stone. The sides were round rough logs, not even the bark taken off, laid up by notching the corners together, the cracks well filled with clay, the chimney all clay and sticks; the roof, floors, and door, all made of split boards, and the tables, bedsteads, and cupboards, all of the same materials.

"Oh dear! I never will go to the west, if I have got to live in such a house as that. Why, it ain't as good as our hog-pen—and only one room!"

No mam, only one room—and we were very glad to get that just as winter was setting in upon us, 15 miles from neighbors, 40 miles from mill, store, farm, or post office. One room 16 feet square, in which have lodged 16 persons, other emigrants like ourselves, night overtaken in winter, without other shelter, and in which my family spent a happier winter than I ever expect to see again. And although not as costly, madam, as your aristocratic hog pen, yet I can assure you, that even you could live comfortable in such a house, and if you come to the west, as you are now thinking of, you will be very likely to live in a similar one—and you will be very comfortable too, and if I should happen to call on you, you must not think you could not make me comfortable too, although you had but "one room."

"No neighbors—so lonely!"—do you say. No, I assure you, we were not lonely—never less so than that winter. In the first place, there is a dozen "honey-trees" to be cut and taken care of, and as there is no fruit nor vegetables, the deficiency is to be made up with cranberries. Then there is the venison, geese, ducks, grouse, quails, and squirrels, &c., to dress and eat; and once in five or six weeks we had "the news" from the post-office. There was no lack of employment in doors or out—no loneliness—no repining. We all came here with a full knowledge of what we had to do and expect, and so there was no disappointment.

And my dear reader, when you come to the west, don't expect too much; humble yourself to new and strange things that your new circumstances will induce. And take my advice, if you cannot humble yourself to make a beginning in a humble log cabin, you had better wait where you are, until some better pioneer has made a beginning for you. Don't come here to be miserable, for generally we are a happy race, "full, fat, and saucy;" and some of us, after we have got a "good beginning," get a little lazy. Corn and hogs will grow without much work, and "hog and hominy" will support life; and "who would work when he was able to do without it?" If you answer that you would, and that you and your family can "make a beginning" in a log cabin, you may start for the west. But don't forget the advice I gave you in my first number, and don't forget your well meaning old friend "the squatter."

SOLON ROBINSON.

Lake C. H., Ia., Nov. 1, 1840.

Legislative Aid to Agriculture.

MESSRS. GAYLORD & TUCKER—As editors of the leading agricultural paper published in this state, you cannot have been inattentive observers of the efforts which have been made and are making in various parts of Western New-York, if not elsewhere, to organize Agricultural Societies, and to the success which has attended their organization in many counties; nor can you feel unwilling to lend your aid and influence in sustaining and supporting them, as their object is the same as that you are endeavoring to attain, through the instrumentality of your valuable and useful paper, that is, the advancement and improvement of our horticultural and agricultural interests; and my motive in addressing you is to solicit your consideration to some plan to accomplish so desirable an object; and what is more likely to do it than institutions, well regulated and conducted, of the kind above alluded to, and now struggling to claim public attention. If this view of their utility be correct, how easy is it for yourselves to invite that consideration for their support and aid, which the importance of the subject requires. If you would but only say to your many readers, "Now is the time for action. Petition your representatives for an appropriation for the improvement of Horticulture and Agriculture," the work would soon be taken in hand. A sum necessary to animate, strengthen and sustain these interests would be granted. A large sum from the state treasury would not be wanted; not much more, if any, than one hundred dollars to each member of Assembly, or in the aggregate twelve thousand eight hundred dollars, to be distributed countywise, throughout this great state, as each county shall organize a society, according to its representation, and raise a sum equal to its share of the fund appropriated, either by voluntary subscription or by assessment by a vote

of its Board of Supervisors; which sum so to be appropriated and raised, to be expended and awarded by the county societies in premiums, payable in money, medals, agricultural periodicals, or such suitable evidences of merit as may be deemed expedient to encourage and improve the culture of such articles of horticultural and agricultural growth, as may be designated; and also of domestic manufactures; an interest equally worthy of encouragement and protection; and if this is too limited, ask a farther appropriation, so as to organize a Board of Agriculture, or if it is preferred, appoint a State Agricultural Commissioner, defining his or their duties by law, or even extend the application so as to be able to purchase two experimental farms, connecting a seminary with them, one to be located on or near the North river, and the other in some part of the Genesee country. There are various views of improving these great primary interests, which if legislated upon, might be brought into co-operation, to aid in advancing the general object. I cannot but think, if the legislature should be approached in this matter, that it cannot avoid paying attention to the reasonableness of such an application; urged as it would be by a decided popular voice in its favor. If a fund is required to be pointed out, from whence the necessary means can be spared, the revenue, unappropriated, of the United States deposit fund, might be indicated. But the sum necessary to stimulate and invigorate the great interests mentioned, can readily be found among some of the many fiscal pockets into which the redundant treasures of this great state are distinguished. I will not stop therefore to point out resources, but will close by simply asking of you to urge your readers, especially the agricultural portion of them, to make an effort worthy of their vocation for its encouragement and improvement, and as the interest and welfare of the whole state are involved in it, those to whom these trusts are confided will not disregard their reasonable claim.

Your ob't serv't, OLIVER PHELPS.

Canandaigua, Dec. 15, 1840.

Use of Ashes and Lime.

MESSRS. EDITORS—If in your opinion the following account of successful and profitable farming will in any way benefit the public, you may make what use of it you think proper. In the spring of the year 1834, Capt. MOSES VAN INWIGIN, my neighbor, sowed about 100 bushels of ashes on the quarter part of a field of about 10 acres of land, in rye, having previously seeded the whole field with clover and timothy. This field was part of a farm of fifty acres on the Never-sink Flats, mostly a sandy alluvium, and in much of it the sand greatly predominating. The whole so exhausted that it would hardly pay the interest of \$25 per acre. The part not ashed had been well manured the previous year. The result was, first, that on the part ashed the crop of grain was benefited to the full amount of the value of the ashes sown; and the next season he mowed from the part ashed at the rate of two tons of hay per acre, while on the residue there was a poor and stunted growth of grass, with much sorrel, hardly worth the expense of gathering. In the spring of 1835, he sowed on land in rye, and seeded with grass seed, about 900 bushels of ashes at the rate of 30 bushels to the acre. Here again he thinks the increase of his crop of rye paid all the expense of ashing, and it was followed the ensuing year with an equal growth of grass; since which he has ashed annually on his 50 acre farm from 700 to 1000 bushels of ashes—generally at the rate of about 30 bushels to the acre, until by this, and acting generally on the correct principle that a "Judicious liberality is the only true economy of Husbandry," he has, by an outlay of not over \$10 per acre, brought this poor and exhausted farm, which, before he commenced his system of improvement, would little more than pay the expense of cultivation, to yield an average net profit amounting to more than the interest of \$200 per acre, and in the mean time realized a profit on the money expended amounting to several hundred per cent. The precise amount, or rate of profit, it is difficult to calculate. It should be borne in mind that the full amount of his outlays were generally returned within the year by the increased value of his crops. If, added to this, we consider that the profits of his farm have been increased from six to eight fold, it might at first view be supposed that its real value had been increased in that proportion; yet this is not actually the case, inasmuch as the intrinsic value of the land consisted in its susceptibility of being made profitable by being properly husbanded; in like manner as any other kind of property is estimated valuable, not according to the profit or advantage at any given time derived from it, but in proportion to the amount of profitable use it can be applied to. If this is a correct view, as I believe it is, then is not land, such as the Captain's was, though then yielding little profit, actually worth from one to two hundred dollars per acre? Yet much of equal value, can be purchased hereabouts for from \$25 to \$50 the acre.

But to show that this particular farm had no peculiar intrinsic advantages over others in this valley, I will notice the experience of PHILIP SWARTWOUT, Esq. about three miles south, in the use and advantages of lime. His farm too, had been reduced by bad husbandry until it produced comparatively no profit. Grass could hardly be made to grow on it, of a good quality, even with manure. Except when tilled, it produced nothing valuable, and if tilled once in three or four years, it yielded very little, unless when dunged. With

an expenditure, in liming, of from six to ten dollars per acre, it now yields good crops of wheat, and grass in abundance, of the best quality. Even on a sandy field, I visited when he was gathering his hay, on which he had hardly ever before seen grass enough to pasture a goose, he had now mowed a heavy burthen of excellent hay,—and this the effect of one liming at the rate of 60 bushels to the acre; and that without the use of any other manure. Now it may be well to remark that the part of Shawangunk mountain next this Valley is full of lime stone, with abundance of wood, while the Delaware and Hudson canal runs through the hollow, and affords abundant facilities for burning lime at a cheap rate. Fine coal adapted to the burning of lime in what are called perpetual kilns, can be furnished here very cheap. Slaked lime can also be brought on the canal from the neighborhood of Rondout, and delivered in the center of most of the farms for 6 or 7 cents per bushel. Now I would ask whether the profits that may be realized by the purchase and proper use of these lands are not enough to gratify the most greedy speculator. And in what business or by what device or management he could reasonably hope for a more favorable result. Not that I would encourage any to embark in farming from speculative motives. Farmers should be sober, working men—not visionary schemeists. But I do aver that there is no business I know of so well calculated to secure the greatest sum total of advantages and enjoyments as farming, if properly conducted.

HENRY VAN KLEECK.

Cuddebackville, Orange county, N. Y.

POUDRETTE.

TO THE EDITORS OF THE CULTIVATOR—Will you allow me the privilege of answering, through the medium of your widely circulated paper, a few of the numerous inquiries made in relation to the value of Poudrette as a fertilizer, in comparison with other manures, as well as to the mode of application, transportation, cost, &c.?

Poudrette has been used in this country as a manure three seasons, by few persons and in small quantities only; of course its comparative value with other manures is known but to a limited number. There are many others, however, who, from report, entertain a favorable opinion of its virtues, yet who desire to obtain more definite information before they incur any expense in making experiments with it.

During the past season about one hundred and fifty persons have used poudrette, prepared by the "New-York Poudrette Company," under my management—from many of whom I have received reports highly favorable and satisfactory as to its comparative value as a manure; and others have promised reports of the result of their experiments which have not yet come to hand.

It is my intention to publish, when I shall have received further reports, another pamphlet, giving the results of three successive years, on the same farms, by several gentlemen, whose aim has been to give it a fair trial; but I desire now to answer a few of the leading questions frequently put to me, that those who wish, may be able to make experiments next season. The following are more frequently asked than other questions, viz:

- 1st. On what soils is it most beneficial?
- 2d. On what crops may it be most profitably applied?
- 3d. How much per acre is commonly used?
- 4th. How is it applied?
- 5th. What is its cost per bushel?
- 6th. How is it ordinarily and most economically transported?

In reply to the first question, "On what soils is it most beneficial," it may be justly said that its beneficial influences are visible on all kinds of soils where it has been used; but most apparent on poor sandy or barren soils, where little or nothing would grow without powerful manure.

2d. "To what crops may it be most profitably applied?" I can only say that it has been used by many of the Long-Island and several of the New-Jersey farmers on wheat, corn, oats, buckwheat, turneps, and all kinds of garden vegetables, with great success; and it has been satisfactorily ascertained, by several experiments, that excellent crops of grass follow wheat manured with poudrette; and I am not aware that it has been found without value on any crop.

3d. Upon this question, "How much is commonly used per acre?" much may be said without answering it to the satisfaction of many. As, to answer it properly, it is necessary to know the character and condition of the soil where it is to be used; but the following comparative statement of its relative value with other manures, will enable every farmer to decide what would be proper on his fields.

One bushel of poudrette, prepared by the New-York Poudrette Company, is estimated to be equal in value to
18 bushels of city street manure—to
14 bushels of cow-yard manure—to
10 bushels of horse-stable manure—to
6 bushels of hog-pen manure—to
3 bushels of ashes—and to
1 bushel of crushed bones.

Some who have used it, estimate it much more highly than the above statement, as will be seen by a reference to the statement of Mr. L. Soper, at page 16 of the pamphlet sent herewith—where he says that he raised as good wheat with 40 bushels of poudrette on an acre as he did with 40 wagon loads of barn-yard manure on another acre.

By these estimates of its comparative value it will be seen that there must be great economy in its use—where transportation enters into the cost of manuring a farm—as will be more readily understood by the annexed statement of the cost of manuring ten acres, for five years, in the town of Huntington, L. I., or in any other town where there is 40 or 50 miles of water transportation, or two or three miles of land carriage from the sloop landing, with stable manure from the city of New-York, and also with poudrette purchased annually of the New-York Poudrette Company, or with poudrette received as a dividend from the company.

4th. "How is it to be applied?" When applied to wheat it is usually spread on at the time of sowing, and harrowed in with the seed, at the rate of 20 to 40 bushels per acre—but some farmers have applied one-half the quantity at the time of sowing, to give it a vigorous start in the fall, and the other half in the spring; thereby ensuring an early and healthy growth in the spring. For corn, about a gill, or handful in the hill at planting; and an equal quantity put on at broad cast, and worked in with cultivator and hoe at the second dressing; or 15 to 30 bushels to the acre has been found to produce an excellent crop—having a deep green color whilst growing, and coming to maturity earlier than when manured in the ordinary mode. For oats, 15 bushels, and for buckwheat 10 or 12 bushels to the acre has been found to produce excellent crops.

The 5th and 6th questions—as to the cost and transportation of poudrette, are easily answered. Present price of poudrette prepared by the New-York Poudrette Company, is 35 cents per bushel, heaped measure, or \$1.65 per barrel of four bushels, including barrel. Where it is to be transported a short distance only, bags are the most convenient, as they may be returned at little expense for a further supply—but where it is to go some distance, and may have to remain one week or more in the packages, barrels, casks or boxes are the most suitable.

Of the superior value of poudrette where transportation enters into the account, as a fertilizer, over all other kinds of manure in use amongst us, except bone—and some who have used both do not even except bone—I have no doubt; and I cannot, perhaps, better illustrate its value than it is done in the annexed statement of the cost of manuring ten acres, for five years, by three neighbors whose farms adjoin, in the town of Huntington, Long-Island, and about three miles from the landing, or in any other town on Long-Island sound or Hudson river, or in New-Jersey, with from 30 to 50 miles of water carriage.

Three neighbors—A, B and C, whose farms adjoin—lying about three miles from the landing, and 40 miles by water from the city, wish to manure 10 acres of ground each year, for five years.

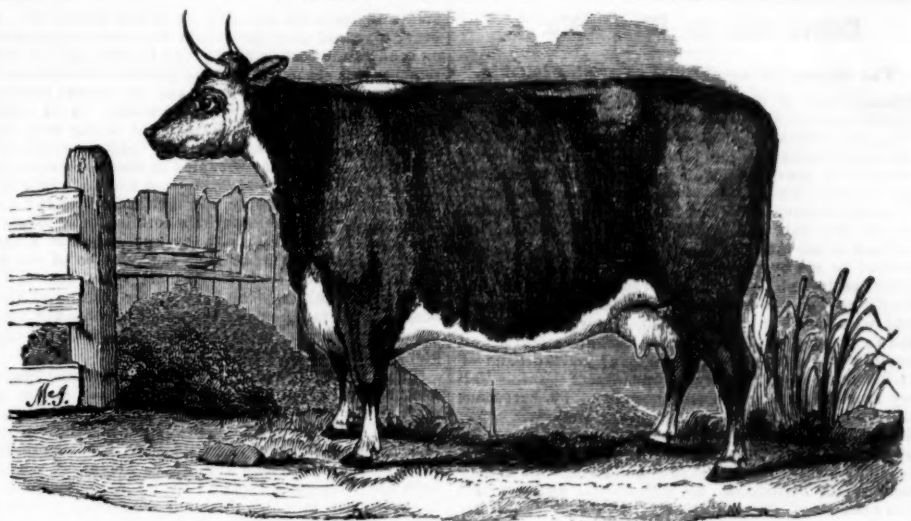
1st. A uses 20 city cart-loads of stable manure per acre, or 200 city cart-loads at 50 cents each,.....	\$100 00
Freight on 200 loads, at 20 cents per load,....	40 00
Haulage from the landing to the farm, three miles, 20 cents per load,.....	40 00
Total cost for manuring 10 acres, 20 loads per acre, per year,.....	\$180 00
Total cost for do do do do do do do do do do	900 00
2d. B uses 30 bushels of poudrette, purchased annually at 35 cents per bushel, 300 bushels,.....	105 00
Freight by water, 40 miles, five cents per bushel, 300 bushels,.....	15 00
Haulage, three miles from vessel, seven loads of 43 bushels, at 75 cents per load,.....	5 25
Bags to transport it in, 50 bags at 22 cents per year,.....	11 00
Total cost for 10 acres, manured one year with poudrette,.....	\$136 25
Total cost do do do do do do do do do do	681 25
3d. Ten acres with the same quantity, 30 bushels of poudrette per acre, received as dividend on three shares of stock in the "New-York Poudrette Co." which costs,.....	300 00
Interest on \$300, at seven per cent, for five years,.....	105 00
Freight on 1500 bushels, at five cts per bush.,.....	75 00
Haulage of 1500 bushels, or 35 loads of 43 bushels per load, from vessel, at 75 cents,.....	26 25
Bags, 50 per year, five years, at 22 cents,....	55 00
Total cost of manuring 10 acres, for five y'rs, \$261 25	

Thus you will perceive, that when shares are taken at present rates, B would be the gainer to the amount of \$218.75 by purchasing poudrette at present prices, and C to the amount of \$338.75, by taking shares in the company at present rates, even if the company had but five years to continue, over A who uses stable manure; this, however, is only a small part of the advantage accruing to the shareholder, as he will be able to manure ten acres for eighteen years, the period which the company has yet to continue by its act of incorporation. The farmer who uses stable manure will have to make a much larger outlay every five years, than the share holder in the "New-York Poudrette Co." in 18 years.

There are, at this time, over 60 share holders who have used the article during the past season, many of whom have used it successfully 3 years in succession.

Shares in the company may be had at one hundred dollars each—which are entitled to fifty bushels each spring and fall, or one hundred bushels annually.

D. K. MINOR, Agent, 120 Nassau-street.
New-York, November 25, 1840.



MR. M'INTYRE'S HEREFORD COW.—[Fig. 5.]

MESSRS. GAYLORD & TUCKER—The cow, of which the accompanying wood cut is a portrait, is a full bred Hereford, descended from some of the best of that breed in England. She is one of the latest importation of the Messrs. CORNING & SOTHAM in August last; and was purchased by myself in November. She was selected by Mr. Sotham, as a fair specimen of the breed in

superiority of milking properties, and to show that the Herefords may, in that valuable quality, stand equally fair as in their generally acknowledged superiority in early reaching maturity and great propensity to fatten.

Yours, sincerely,

J. M'DONALD M'INTYRE.

Albany, Dec. 30, 1840.

Late Sown Wheat.

MESSRS. GAYLORD & TUCKER—I see in the Cultivator, of July last, an inquiry concerning late sowing of fall wheat. On this subject I have some experience. In the fall of 1832, I had a fine large Irish potato field; we were late getting off the potatoes; immediately after which we had it sown in wheat. After sowing, I think the day after, there came on a severe freeze, and prevented the grain from vegetating until spring. In the spring it came up most beautifully, thrived well, and produced as fine a yield and as good a seed as I ever had. This success induced me to try it again, and it succeeded equally to my satisfaction, so that I have adopted it as my system of sowing fall wheat.

There is but one objection to it in Illinois, and that I have never experienced until the present year, and I believe the same difficulty has attended early sown as well as late, but not perhaps to the same extent—that is, the blast or rust; but if we are more exposed to this evil, we are more than compensated for it (which will only be occasionally) in the security it affords against the fly and the severity of the winter; in both cases I believe it to be a sure protection, particularly in the latter, which is very fatal to us in this country. To effectually secure either or both of these ends, it should be sown late in the fall, or any time in open spells in winter.

Experiment with Potatoes.

Before closing this communication, I would beg leave to give you some of my Irish potato experiments, for since I had the good luck to fall in with your valuable paper, I have seen a number of experiments and theories in relation to the cultivation of this valuable root, some of which I believed, others which I doubted, and others which I wholly disbelieved; and as our country (American Bottom near St. Louis) is not only destined to be, but now actually is, one of the greatest potato growing sections in the west, I thought that any information on the culture of this root would be necessary to myself and perhaps useful to others.

And first, I will say the potatoes were all planted the same distance apart both ways; the only difference is in the quantity in the hill, and the preparation and quality of the seed. The question among potato growers here is on these points—not on the quality of the ground, the newer it is the better—not on the variety of the article; the large blue taking the decided preference of all others, the Rohans not excepted—not on the kind or manner of manuring, for we scarcely manure our gardens here—not on the mode of culture; all plant and plow them like their corn, only nearer both ways.

I planted five rows side by side, and the hills I experimented on side by side; and

1st row, cut the common size, that is one large potato cut into 4 or 6 pieces, 4 pieces in a hill.

2d row 4 pieces in a hill, cut as small again.

3d " 2 " " smallest round ones.

4th " 1 " " largest, without cutting.

5th " 2 " " of same size potato.

I proceeded to dig two hills in each row, and count the number of potatoes in each two hills, and also to weigh them. The result was as follows:

1st row, counted 53 potatoes, weighing 10½ pounds.

2d " " 62 " " 10½ "

3d " " 36 " " 8½ "

4th " " 37 " " 12½ "

5th " " 31 " " 8½ "

I observed that those in row 2, had the most small ones and the fewest large ones—the large whole seed certainly

furnished the largest potatoes, without any small ones—the balance were pretty much alike in point of quality. What is the most surprising is that rows 1 and 2, should yield precisely the same weight of potatoes when only half the quantity of seed was used in the 2d row, and the only difference is being cut again, having the same number of pieces in a hill, they being only half as large; thus it seems that they ought not to be crowded in the hill. Row 3 with about the same quantity, produced but 8½ pounds which is a bad yield. Row 5 a good yield for the quantity of seed—4th the quantity of seed and 3rds the quantity of potatoes compared with the best row 4, (the large whole seed.) Therefore if we want a large yield of large potatoes, plant the large ones whole, although they will not go as far as to cut them.

We have cultivated the famous Rohans for the last two years, but they will not begin to compare with our Illinois blues, neither in quality or yield; the blues will, I am satisfied, beat them twenty-five per cent in both these respects.

THOMAS G. LOFTON.

Six Mile American Bottom, Illinois, Oct. 2, 1840.

Pedigree of Daisy.

MESSRS. GAYLORD & TUCKER—The pedigree accompanying the engraving of the beautiful heifer "Daisy," appears imperfect, as does many of the pedigrees published, giving only the names of sires, g. sires, gr. g. sires, &c. It is as important that the pedigree be given of the dam, dam of sire, dam of g. and gr. g. sire, &c. Daisy was by Leopard, dam Matilda by Red Jacket, g. dam imported cow Majesty. Majesty having been imported is no evidence of the purity of her blood. The dams of Red Jacket and of Young Regent may have been native or grade cows. It says: "White Jacket was got by Young Regent, whose sire was imported Regent, by Favorite the sire of Comet." Imported Regent was sold at the sale of Charles Henry Hall, Esq. in 1830, for 8 years old. Comet (155) was got by Favorite (252), and in 1810 was sold as six years old. The famous Durham Ox was got by Favorite (252), and in February, 1801, was sold as a five year old; of course Favorite (252), the sire of Comet (155), and of the Durham Ox, could not have been the sire of imported Regent, which was calved in 1822. Ajax the sire of Leopard was by Washington (1566), dam Red Lady by Washington (1566) g. dam Panzy by Blaise (76).

HERD BOOK.

Connecticut, December, 1840.

THE CHINCH BUG AGAIN.

MESSRS. EDITORS—Last spring you may recollect I addressed you on the actual and threatened devastation of the chinch bug in this section of our country, and offered a premium for a feasible remedy, (which was responded to by others till it amounted to a handsome sum.) I now inform you that "our fears were disappointed and our hopes exceeded" as to this pest, by the hand of an overruling Providence. The season turned off wet and very propitious to crops of all kinds, and the ravages of this bug were arrested. Even fields of wheat that had been greatly injured, suddenly revived and produced a tolerable crop; and the corn crop, which last season in places here, was ruined, escaped uninjured.

Should next season in this region prove dry or propitious to this bug, it remains to be seen whether it will again make its destructive appearance.

Respectfully yours,

SIDNEY WELLER.

Brinckleyville, Halifax co. N. C. Nov. 24, 1840.

Letters from the West—No. 4.

The Sciota Valley—Virginia Farming in Ohio.

PERHAPS one of the most beautiful and fertile regions to be found upon the face of the globe, is the SCIOTA VALLEY, stretching from north to south about two-thirds the distance across this great and most highly favored state, presenting in its whole length, varied and picturesque views of limestone precipices, bold gravelly or argillaceous bluffs, and deep alluvial banks, spreading out into wide rich bottoms, and bounded by rolling uplands of the most desirable and eligible kind. As described to me by those who first saw it in its pristine glory, of dense lofty forest, umbrageous parks, tall waving grass and flowery prairie, studded by high mounds and wide ruins of ancient fortifications, it must have been a sort of aboriginal paradise, that one might almost deplore was ever fated to be marred by the hand of civilized man; judging from appearances too, this Valley must have been densely populated by barbarous tribes, thousands of years ago, who had their happy days as we have now; and even when first discovered by the white man, it was the favorite residence of numerous and probably more savage bands than the inhabitants of the first epoch, the wide-spread and powerful Shawnee stock, and so great was their love for this delightful region, that they fought for and clung to it till the last, with the convulsive grasp of the child to its mother's bosom, that a hated and superior power would feign force away. Poor hapless race! Here from time immemorial, they gave chase to the wild deer, the shaggy bear, and huge buffalo; cultivated the golden maize, feasted on its roasted ears, boiled succatash, and pounded hominy; spouted their eloquence and made their wars, sung their songs, and danced to the music of the bowstring, the tom-tom and chichicon, and smoked to the Great Spirit of all. What themes were these for the imagination of the poet to revel in, or the pen of the novelist, or even that of the graver and more matter of fact historian* to trace, but they are not mine, and I turn to what is more likely to interest the readers of the Cultivator, that is, the growing of stock and management of farming lands.

Just above Columbus, the Sciota is joined by its largest branch the Whetstone, or according to its more euphonious Indian name, the Olentangy, where in fact commences the great corn region and Valley of the Sciota *par excellence*. Here a decided geological change takes place; the deep limestone quarries crop out a mile or two below, and are no longer found in the whole course of the Valley to the Ohio; the hills recede and the bottoms at once quadruple their width and become of the richest vegetable mold, of a depth from three to ten feet, resting on a bed of light yellowish clay, close sand or limestone gravel. The waters, also, become more sluggish, and with the exception of now and then a short shallow ripple, making a convenient ford, they wheel lazily along to their final mingling with those of the Ohio.

At the head of this lower Valley, on the right bank of the river, commence the almost princely domains of the Messrs. SULLIVANTS, stretching a long distance down its clear wining stream, enclosing the village of Franklin immediately opposite Columbus, and running in parallelograms of about an equal width on each side of the National Road west, to the distance of between six and seven miles, making an aggregate of land, in one compact body, of upwards of eight thousand acres. This, however, is only called the homestead, for in addition, I believe, there are some five and twenty or thirty thousand acres more of out-lots in this and the adjoining counties, of the best quality of farming uplands, much of which that is cleared is devoted to the growing of stock. But as the homestead embraces all the varieties of soil to be found in this county, and as it is a fair sample on a large scale of Virginia farming in Ohio, I shall at present confine my observations to this, trusting at a future day to give a pendant to it, in the management of some one of the numerous hundred or two acre farms of my northern brethren, that have settled here and are adding so much to the populousness and wealth of this great state.

The bottom lands of this large estate are about two and a half miles wide, and till within a few years, from time immemorial, have been devoted almost entirely to corn, they having been found in this crop when first discovered under the sway of the aborigines of the country. The Sciota then occasionally overflowed its banks with back water, which left a thick rich sediment, that kept up the fertility of the land drawn out by the growing crop. But this overflow has occasionally been found to destroy the corn, and latterly an embankment or levee has been thrown up along the lower banks of the river, which serves to keep the water out, and the consequence is, that the same lands that would average with common attention 75 to 90 bushels per acre, do not now yield over about 65 bushels, when the

* Mr. J. Sullivan is now employing himself with the measurement, plans and views of the ancient mounds and ruins of this region, and I trust when completed, he will give them to the public, together with a history of their probable origin and relics, coupled with a geological, geographical, and historical memoir of the Sciota Valley, from its first discovery to the present time. His elegant pen could not be better employed, and would give an interest to all these matters that the public would highly appreciate. What is more valuable than the local histories of Europe? They are the treasures of the antiquary, and mines of the general historian.

stalks and corn are annually cut up and carried off. In order to recruit them then, under this exhausting system, as soon as the corn is glazed, say the fore part of September, it is cut up close to the ground, and shocked in straight rows across the field, and the ground between immediately plowed and sowed to wheat. In the course of the winter, the corn is husked out in the field, and the stalks carried off as wanted for fodder, and the narrow strips of land they occupied in shocks between the wheat in the spring is sowed to oats and the whole field stocked down with clover, and then fed off for two seasons and the land again put into corn till found to lessen its crop. In this way, with the application of a little lime, which can be made from the quarries of the estate at the trifling cost of eight cents per barrel, the Messrs. S. think they can keep up the fertility of their bottom lands to the end of time, and yet annually carry off all the corn and fodder when in crop, to be fed upon and fertilize the uplands.

The fields being very large, the soil light and friable, and no obstructions of stones or any thing else in the way, all the labor of planting, covering, and weeding is done by different made plows, harrows, and cultivators, drawn by horses, and with great care and rapidity, the details of which I will give hereafter, when I have fully witnessed them. I shall confine myself now to the manner in which the lands are farmed or rented. The first and most usual way, is for the tenants to find every thing and take one-half of the crop shocked in the field, or deliver neatly husked one-third in the crib. Second, pay a corn rent of twenty bushels to the acre, of sound bright corn, delivered in the crib. Third, find seed and cultivate the crop for three dollars per acre, to shocking it in the field, and two and a half cents more per bushel for husking, and cost of delivery according to the distance to be transported. Fourth, the owner of the soil hiring his own men by the day or the month, and doing every thing then within himself.

There are two ways of feeding off the corn and pumpkins here. One is to turn fattening cattle into the field, and let them eat at their own discretion, and then be taken out and followed by droves of hogs, who clean up pretty much all that is left. This, to a northern man, may be considered very wasteful, but it is a great saving of labor, and the corn being comparatively soft, is easily ground by the animals and digested. Besides it is the very principle adopted in Europe, where labor is much cheaper than with us, in feeding off their root crops, by cattle, sheep, and swine, and a bushel of corn costs the Ohio farmer no more, and I suspect on an average hardly as much, as the same quantity of turneps does an Englishman. Why then should we object to it on a larger scale, when every thing must be done at a high rate of wages, and the course returns nearly every thing back to the soil in the way of manure, and thus keeps it up in a state of everlasting fertility? The other manner of feeding it to swine, makes the very *beau ideal* of animal existence, fulfilling the assertion of Doctor Franklin's servant, that "de hog, he eat, he sleep, he lib like a gentleman." They have a large grass pasture to range through, with a running stream to wallow in and slake their thirst, beds of leaves to lie in, and mossy trees to shelter them from the hot rays of the sun. To this place loads of pumpkins and corn are brought out twice a day, and they are amply fed till fat enough to go to market, and it is amusing enough for a stranger to be present at the scene. In wheels to the hog pasture, a great heavy Dutch wagon with four stout horses, the driver astride on the near hind one, coolly whistling some animating air, and keeping time with the flourishing of his whip in loud pistol cracks, while another genius, standing on top of the load, commences pitching it to the right and left, stopping and standing up now and then to give the long drawn roll-call, at the top of his voice, of *whoo-oo-hoo*, or perhaps more poetically from a horn slung by his side, he draws forth a clear tremulous blast that rouses the whole grunting field from their recumbent positions and sets them on the move, reminding one of the stanza in the old ballad:

He took a horn of silver bright,
And blew a blast so loud and shrill,
Each bush it grew a warrior dight,
Each rock a knight upon the hill.

The uplands are occasionally cropped, and will give an average yield of 40 to 50 bushels of corn per acre, 25 to 30 of rye, 20 to 25 of wheat, and 40 to 50 of oats, and finer and larger root crops I have never seen. The summers here, are long enough usually for the sweet potato to ripen, if cultivated with care, and they grow as large as in their favorite home, the sands of the Carolinas. Grass is first rate, and one and a half to two tons to the acre, with plenty of rowen or aftermath is not at all uncommon. But the great superiority of the south-west over the northern regions is its milder climate, the almost ceaseless growth of grass during the whole year, and the consequent ability of the pastures supporting stock well out doors upon it, any where in the latitude of 40° or below all winter, excepting some few short weeks, when the season happens to be unusually severe, as was the case in the cold snowy winters of '36 and '37.

For the summer, the stock have their range in cool open woodlands, or more properly parks formed by cutting out all the small growth and underbrush, and when too thick, of some of the larger trees of the original forest, and then sowing it to a variety of grasses.

White clover, and the famous Kentucky blue grass,* and another tolerable fair variety for early and late pastures, called by the odd name of Nimble Will,† come in naturally. The early spring and late fall pastures are clear open fields, and for the winter, meadows fringed with belts of thick woods. Here the stock feeds through the day, even pawing up the light snows from the ground to do so, in preference to going to a stack, and at night they find a dry warm bed of leaves to repose on in the forest and close underwood around, and branches overhead to shelter them from winds and storms, making their coats look as sleek as a mole's. Most stock growers agree that cattle thus tended thrive and appear better than when housed in sheds and with straw yards to run in; and the saving in cost of buildings, cutting and securing hay, foddering, and the carting out of manure to the fields again is immense, for in this way of pasturing, only when the weather is severe, foddering from adjoining hay stacks and corn fields, one man will easily take care of 200 head of cattle during the winter, making real sport of his business.

Mounting a flashy galloper, or swift pacer, that will come up kindly to the opening and shutting of gates, take a big log and low fence at a flying leap, the horseman is soon in the field. The pasture may be from 100 to 500, and sometimes, though rarely, of 1000 acres. Of course he cannot see all without some trouble; he therefore leads off in the musical line, like our friend the pigman, with a regular Indian halloo, varying the *whoo-oo* somewhat by a final ending in a higher key, of *e pee*, or *whoo-oo-oo epe*. At this familiar sound, the cattle raise their heads, and at a second or third repetition set off upon the full scamper in every direction for the herdsman, tossing their heads, kicking up their heels, and plunging to the right and left like a herd of wild buffaloes, and in the most joyous mood imaginable. They are then talked to in a petting way as if they understood every word that was said, thrown a little salt, seen that none is missing, and foddered from the stacks if necessary. Large fields of rye are sown in the fall, for early spring pasture, but really, since I have come to see the country, I am almost of opinion that in large stock farms, it is quite as profitable and as well to shut up the winter pastures all summer, and leave the grass to grow, reserving four separate pastures, one for December, one for January, one for February, and one for March; and by the first of April, the grass has got a fresh bite again in the summer pastures, ready to receive the stock. Too much hired labor for plowing, planting, sowing, and harvesting, will eat up the whole produce of the best of farms, when conducted on a large scale; those in a small way, worked by the owner himself and family, with a little hired help, can undoubtedly profitably pursue a different course, but of all this I do not wish to be understood that I have decidedly made up my mind, as I must be longer in the country before I can do so. But where thick belts of forest are not reserved for shelter, I would by all means recommend protection of cheap sheds to stock; even in a climate much more mild than this, snows and sleets, and cold winds, and drizzling early spring rains, cannot be borne by cattle without much suffering.

Leaving the brothers, with their highly cultivated minds, to their favorite studies of Botany, Natural History, &c., many a bland day, with the clear November sun shining warmly out, have I mounted horse with Mr. M. L. SULLIVANT, who is the great farmer and stock man of the trio, and bolted forth to view the numerous and varied animals, that grace his larger share of the estate. He does not allow a single scrub on his farm, but all are thorough-bred, or more or less graded, making a most gratifying show of cattle; and it is astonishing what a revolution a good Durham bull will create in a few years. Here were animals on the same food, fifty per cent larger than common cattle would have been of the same age, with broad loins, deep thick quarters, fine heads and short horns, and as fine and silky and sleek in their coats as a blanketed horse, and as fat as butter. Among so many animals, it will not do to particularize too much, or I should be calling a roll as long as the catalogue of Homer's heroes; it will therefore suffice to say, that his imported Flora is of great size, a good animal, and one that fleshes easily. She girths largely, and has a wide spread of the hips, measuring slightly over two feet six inches. Imported Bertha is fine and compact, and but a trifle less size than Flora; but one of the prettiest to my notion, is Jessica, out of my father's imported Rachel, got by Whitaker, brought out from England by the Ohio Company in 1836. Of the bulls, Talleyrand is long and large, with a lofty and well set head and neck, and fine flat arched horns. He was bred by Wm. F. PALEY, Esq., of England, and took the premium there as the best yearling at the Wharfedale Agricultural Society. Red Jacket is a capital heavy snug fellow, and Niagara, of pure white, will yield to few in fineness of point, and to none in depth of pedigree. Aside from the above, there is a scattering of promising young ones of both sexes.

In mules, Mr. S. drives an extensive trade, often having a countless herd, and at other times is pretty well thinned out. They are of large sizes bred here, much more so than is usually found at the east; and as for Jacks and Jennies, I suppose I must not talk much of them till I get to Kentucky; but as Mr. S. sent a herd of crack females some two years ago, down among his

* *Poa trivialis*.† *Muhlenbergia diffusa*.

half horse and half alligator brethren, they were returned him this fall with quite a progeny. Turning a sharp angle of a thick clump of woods, in a wide pasture one day, I unexpectedly came upon the whole posse, and as my eyes had not been blessed for a long while with a view of any four legged longears, I could not but give them a rapturous hail, and set up a broad laugh, that the droll sight of a regular built jackass scarce ever fails to inspire within me. To my great delight, they, *en masse*, took up the spirit of fun, and echoed back in my own coin, the head of the clan leading off with the short coughing grunt of a high pressure safety valve, and ending with a high broad cackation, that would have eased the lungs of the most gamesome darkey of the land.

Tiger Tail and Big Thunder are a pair of imps not to be sneezed at—they were got by Mr. CLAY's Big Warrior, that sold some two or three years since for the enormous price of \$5,000! These may be matched by a full sister to Tiger Tail, Shawnee Girl, got by Camillus, a son of Mr. C.'s imported Ulysses, and two jennies by a famous large jack imported from Mogadore by the late Captain Riley.

Of fine sheep, Mr. SULLIVAN has only dabbled in Leicesters; they were selected by Mr. W. F. PALEY, in England, and imported by himself at a large cost. His old breed of hogs are of a very good kind, and are generally a cross of the Grass and Leicester, but like most every other candid man that I ever met, he sees the superiority of the Berkshire, and is working into them as fast as possible. He has a few full breeds, some of which are very choice. Long Canoe is a tremendous big fellow, and Sciota as fine a dark haired beauty as is often found.

Columbus stands on an elevated plain of some 50 feet above the Sciota river, and is the seat of government for the state. It was located here in 1812, when its site was all dense forest, with but a single log hut standing. It has now a population of about 7000, and is a handsome regular well built town. Its main streets run parallel with the river and are crossed by others at right angles, most of which are paved, and have wide comfortable side-walks. The stores are numerous and well furnished, and the town does a large and reasonably profitable trade with the rich surrounding country. I was surprised to find so large a book-store as is kept by Mr. WHITING; it has a fine assortment of all the best current literature, and would be considered respectable even in the city of New-York. It is said to be the best supplied of any west of the Alleghanies.

Many of the private residences here are handsome, and the public buildings give an imposing air to the town. The State's Prison, with its extended wings and turreted walls, appears like a castle, and the Lunatic Asylum, with a noble Greek portico, spreads out to a great length, while the plainer edifices of the Deaf and Dumb and Blind Asylums, and Alms-House, show ample room for the unfortunate inmates, and the benevolent care of the state. But the new State House is to eclipse all, for on the present plan it is to be 370 feet square. I can't say, however, that I am over pleased with the proportions of its architecture; it is too low for its dimensions, and the dome and cupola are largely out of all proportion. I should hope to see some alteration in the plan before proceeding farther in the work. The State Library is a good one, and particularly rich in its law department, and with a proper introduction is open to strangers, rendering their stay here thereby much more agreeable than it otherwise would be. The hotels here are good, but one is now being built, which when completed, will be one of the largest and best arranged in the United States; it is five stories high, and about two hundred feet square, and is called after its wealthy and enterprising proprietor, the Neil House.

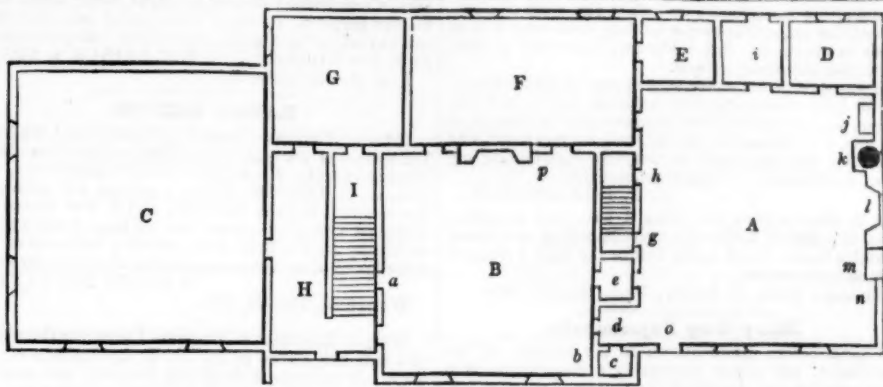
The National Road, from Cumberland to the Mississippi, passes directly through Columbus, and is constantly thronged by a moving mass of emigrants to the never ending west. In addition to good country roads, open to all parts of the state from this point, a cut from the Ohio and Erie canal at Lockbourne, 12 miles below here, intersects the Sciota, opening water communication to the north and south. The river forms a convenient harbor, and a beautiful covered bridge, built by the National Government, with high and finely chiseled massive stone abutments, and a middle pier, spans its waters, connecting Columbus with the opposite town of Franklinton.

A. B. A.

THE FARMER'S PERFECT COTTAGE.

FRIENDS GAYLORD & TUCKER—I cannot say that I have any great story to tell about large crops, or fine Durham cattle, or Berkshire hogs, though I have bred the latter a few years with good success, and have now on hand about twenty pigs, some fit and others fitting for the market. My object is to give a plan and description of a dwelling that I have been building the past season. Thinking that I might spend my days in it, have endeavored that neither pains nor expense should be spared to make it both comfortable and convenient. My family are now enjoying its convenience and comforts, much to their satisfaction. Were I to build again I could not think to alter my plan but very little. I have the judgment of many that they never were in so convenient a house, and could not see where in it could be bettered. Therefore I think it worthy of the title of "The Farmer's Perfect Cottage."

It is situated on an eminence that overlooks the ground on which was fought the great and decisive battle of Saratoga, between the Americans and British,



(Ground Plan of the Farmer's Perfect Cottage—Fig. 6.)

commanded by General Gates on the part of the Americans, and General Burgoyne on that of the British, which lies about one mile to the east and south-east. The ground descends considerably to the east, until it reaches the Hudson river, a distance of about three miles. We have a fine unbroken view of some 20 or 30 miles along the east bank of the Hudson, extending from 3 to 8 miles back, over a beautiful tract of rich and fertile country. Also a more broken view of the high lands along the western sections of Vermont and Massachusetts, an extent of at least 130 miles. The road passes my house running nearly north and south. The house is on the west side, with a fine descent towards the road and also to the north.

The plan that I am about to give is very near the same as the one that I have built. The main body is given 26 feet by 26, with posts 14½ feet, end to the road. Two wings, each set back three feet from the main body. Wings 18 by 18—north wing running as far back as the main body—posts 8½ feet—rooms below, 8½ feet between joints.

GROUND PLAN—(Fig. 6.)

A. represents the kitchen, 17 by 18 feet—B. sitting room, 16 by 16—C. parlor, 18 by 18, arched from each way, with a centre piece run in the middle, carried up about 11 feet in the centre with a stove chimney coming down nearly to foot of the arch, on the south side of the room, and made to form a part of the same, with a sheet iron thimble made on purpose and fitted into the chimney—D. the pantry, 6 by 7 feet—E. clothes' room, 6 by 7—F. bed-room, 10 by 17, with folding doors to divide it into two rooms when wanted, calculated for a stove in case of sickness or any circumstance that might make it necessary—G. bed-room, opening out of front hall, 9 by 10—H. hall, 7½ by 14½ feet, the front door being set back, forming a recess of 1½ feet, lighted by side-lights and lights over the doors 4½ by 12 inches—I. clothes' room from hall bed-room under front stairs—J. small place under front stairs, not occupied by clothes' room L., with a small car 3 feet long, 2 high, and 1½ wide for wood-box, set on iron castors to draw out and in at pleasure; shut from view by a small door—K. secretary and book-case with three drawers, made fast, of black walnut—L. small space behind secretary, opening into pass-way from sitting-room to kitchen—M. pass-way from sitting-room to kitchen, with the door on the sitting-room side—N. double cupboard calculated to accommodate sitting-room and kitchen, with doors to open on each side, that victuals and dishes may be passed through, and save many steps when the table is to be set in the sitting room—O. door to go up kitchen chamber stairs—P. door to go down cellar stairs—Q. pass-way to go out the backside of the house—R. sink drained by lead pipe to drain under cellar wall to prevent a disagreeable muddy place near the house—S. 15 gallon kettle set in an arch with a cover to it—T. fire-place—U. oven—V. cupboard over oven—W. front kitchen door—X. cupboard over right side of sitting-room fire-place, the chimney being carried up on the left jamb.

I have full size windows in both front and rear in my chambers. My chamber is divided into four rooms calculated to use two from kitchen stairs, and the other two from front stairs.

I have very superior walls, wanting only to be as white, to make them nearly equal to hard finished in point of smoothness and firmness. My lime for the last coat, after being carefully slacked, without being allowed to get dry in slacking, was when warm strained through a wire sieve (such as would be used for Indian meal) into a cask or box; then stir in the sand, which should be coarse and clean, (sift it if there is any gravel in it,) until it becomes as thick as a bedding, using care that it be strained as thick as may be. It is best, after standing some days before it is used. The mason should put it on as weak as he can spread it, and trowel it down very hard, which it will bear, if the wall has got sufficiently dry; it may be put on about one-fourth of an inch thick—the wall should be left rough as it is when the darby and flint come off of it. If there is too much lime used, or it is not well troweled down, it will chip crack. On the contrary I think it is the very best finish that can be put on. We have washed some of ours, and they wash equal to a hard-finished wall.

I have a cellar under the whole house. That part under the north wing is converted into a room for wash-

ing, and such like work with two kettles set in arches—one a brass kettle set in a rim of iron, that it may be removed at pleasure. Also a milk room in the rear, with two good sized windows; the ground being low enough to admit of it.

I have examined my bills for lumber and other materials, and they, together with the labor done by carpenters and masons, will amount to about one thousand dollars that I have paid out. My carpenter's bill will be a little over three hundred dollars, having slit the most of the stuff with a circular saw propelled by horse power, a handsome saving for any one, more than the cost of the saw. My mason's bill was eighty-six dollars—did more than one-half of the lathing, and laid all the cellar walls with the exception of my work in company with them. I used unburnt brick for the body of one of my chimneys, and think it a saving of over one-half the first cost of the brick. I filled in all the first story with unburnt brick, (cost \$2.25 per 1,000;) set them edgewise next to the siding, laid in lime mortar, which renders the house nearly as warm as a brick one. The upper story I boarded before siding, with rough boards, all of which stiffen the building much with but little expense. In filling in with brick, I laid the first tier of hard brick down flat to prevent the mice from passing up and down.

I have devoted the most of my time while the building has been going on in assisting wherever I could lend a hand. Have done nearly all my inside painting. I have one coat on the outside. I have not recorded any expense for teaming or work done by myself. Had the stone on my own farm, and found the hewed timber; boarded my hands, and paid my carpenters and masons by the day. I would not wish ever to let such work by the job.

BENJAMIN CHASE.

Stillwater, 10th mo. 1st, 1840.

STABLES WITHOUT FLOORS.

Increase, Preparation & Application of Manures.

MESSRS. GAYLORD & TUCKER—In the perusal of the Cultivator, my attention has frequently been drawn to the subject of manures. It is universally acknowledged an important point in agriculture, to make as much manure as possible; and also to preserve and apply it in the best manner. The urine of cattle and horses, all admit to be of great value as a manure. The quantity of this, it is reasonable to conclude, is greatly increased by giving juicy food. But is not the greater part of this lost, when cattle are kept through our long winters in the usual way, in stables with floors? I would recommend to all who wish to improve the value of their manure heap, to take out their stable floors, where the ground below will admit of it, and fill up to the bottom of the sills in autumn, with good earth. During the winter, the wet manure should be forked out, and fresh litter supplied as often as necessary to keep the cattle clean and comfortable. The dirt soon becomes so hard that the urine will not easily penetrate; and what does is saved in the spring by throwing out the dirt thus saturated. It is surprising how much excellent manure a single horse will make in the summer, kept upon the ground, and plentifully supplied with fresh cut clover to eat, and dry dirt and litter to stand upon. Manure made in this way, will not burn if it is thrown into a pile. Horses' hoofs are greatly benefited by standing on the ground. I have practiced the above method two seasons, (on a small scale it is true, but it can be made to apply on a large one with proportional benefit,) and can say from this short experience, that I would have no stable floors, could I have them at no expense. Stables without floors are easier for cattle to stand and lie upon, as well as warmer; dung seldom freezing, except in the most severe weather.

A good way to preserve stable manure, is to spread it about the yard where cattle will tread upon it. Much of the value is lost by keeping it in heaps under the stable windows where it is exposed to frost and wind.

Upon the application of manure, I have not much to say, as the subject has been fully discussed by able writers and practical agriculturists, who have come to widely different conclusions. When one writer says that manure should be applied to the surface, and another that it should be buried beneath the furrow, it will probably be safe to adopt a middle course. Let the ground be plowed, and the manure piled (that it may ferment

slightly,) in April, and just before you wish to plant, spread the manure upon the surface, and cover it is as much as practicable with a harrow, cultivator, or light plow, not disturbing the sod.

If any part of the above may appear of sufficient utility to have a place in your valuable paper, and any farmer enabled to add even one load more of manure to his pile, I shall consider myself well compensated, and shall feel that my duty, as respects contributing my item, performed. Yours respectfully,

T. P. HUNTINGTON.

P. S. Since writing the above, I have read an article from the Boston Cultivator recommending the diase of stable floors, which is the first of the kind I recollect ever to have noticed.

Richland Home, N. Hadley, Mass. Dec. 17, 1840.

Many Crop Experiments.

I have before made known in the columns of the Cultivator, my entire success in a double crop as to Irish potatoes and pumpkins; or that by planting pumpkins among potatoes after the vines of the latter were of some size, a fine crop of the former overspread the ground, rather to the healthful shading than to the detriment of the potatoes matured underneath.

Of late years I have sowed buckwheat and rye at the same time and on the same ground; and success attended. The buckwheat was cut in the fall, and rye the following harvest. Again, in our hot climate, and on our light sandy soil, I have hit upon a plan that renders red clover of as certain growth and success as in the northern states, if not more so. It is by covering the ground with pine leaves after the wheat and clover are sowed; or cover the wheat in the winter and sow the clover in the spring. Last September a year, I sowed a piece of ground with wheat, and clover on the fresh earth immediately after the wheat was harrowed in, and soon after put over most of the surface pine leaves. The wheat and clover were both essentially benefited by the covering, and a remarkable contrast to that left uncovered to test the utility of the plan.

The fifth of August last, I resolved upon a fourfold operation on a piece of ground, and after sowing thereon buckwheat and rye, and then clover, I covered most of it with pine leaves, straw, and green pine boughs, or with the different materials in different places, coated over about an inch thick. The result promises to be very satisfactory. And a most decided difference in favor of the ground thus covered. I had the curiosity, the 5th of October, to measure the buckwheat from a corner of the piece, less than a quarter of an acre, and the produce was five and a half bushels. Both the rye and clover look very promising for next years crops. Very respectfully yours, &c.

SIDNEY WELLER.

Brinkleyville, Halifax co. N. C. Nov. 24, 1840.

Calf from a Yearling.

MESSRS. EDITORS.—In passing on our journey through this world, we hear of many "freaks of nature," that we hardly believe, and see many that we almost doubt, although our eyes prove it. Such a case happened in my barn yard a few days since. The first morning after I put my cattle into winter quarters, I saw one of my yearling heifers laying down in the farther part of the yard; she did not come to the rack with the others when I foddered them, and I went to her, and to my great surprise I saw a calf lying by her side. I could hardly believe my eyes. I immediately drove her into the barn, carrying in the calf, which was no great exertion I can assure you. I set my thinking faculties to work, to find out the sire of this new comer; it took me sometime to satisfy myself, for I knew she had not been off my farm; even if she had, there was no bull that she could get too. The first of summer as fast as I weaned my calves I turned them into a lot together; during the summer I purchased a bull calf that was calved the 15th of April. I turned him in with my calves, and he is the one that did the mischief. He could have been but five months old at the time she became pregnant. The calf is a fine square built little animal, as playful as a deer, and grows finely. The heifer's teats are about the size of the end of your little finger, and to milk her, I cannot compare it to anything that would give you an idea of the smallness of the business, better than milking an ewe. Now this "freak" may serve a lesson to all farmers who are in the habit of letting their calves, both male and female, run together the first summer. It requires much extra attention to do the heifer justice; still she will look poor and meagre all the winter. B.

Pleasant Hill, November 25, 1840.

Circassian Mulberry.

This important and rare variety bids fair to form a new era in the silk culture, on account of its extreme hardy character and profusion of foliage, of the largest dimensions.

The leaves are about the size of the famous multi-caulis mulberry, but more fleshy and nutritious, and of greater weight, and this tree will consequently afford more food for silk worms than any other variety. The wood is remarkably firm and will withstand the winters of Quebec. Its growth is truly a subject of amazement, being 50 per cent greater than the rapid shooting multi-caulis.

Most of the trees raised from cuttings the present

season now exceed six feet in height, being nearly double the height of all other kinds in the same field. It can not fail to be a great acquisition, and particularly so to New-England. WM. PRINCE & SON.

Flushing, December 30.

LARGE CALVES.

MESSRS. EDITORS.—According to promise, I send you the weight of the bull calf Bolivar, of the Short Horn Durham breed. He weighed when 4 months old, 640 pounds; at 5 months, 760 lbs.; gaining 120 pounds in one month. Bolivar was bred, and is now owned by STEPHEN VAN RENSSLAER, on his farm 2 miles north of Albany on the Troy road, where a few head of the same breed of both sexes can be had if applied for soon. SANFORD BENNETT.

Waterliet, Dec. 16, 1840.

MESSRS. GAYLORD & TUCKER—I send you the weight of a bull calf, owned by Mr. D. B. LITCHFIELD of this town. It came the 16th of May last, and was weighed on the 4th of November, making the calf's age five months and 18 days, when it weighed 525 lbs., not "claimed to weigh," or guessed at, but weighed on scales. Color, deep cherry red; shape without fault. Keeping, it had only the milk of its mother, a small 4 year old heifer. Breed, a slight cross of Devonshire with the native. Cordially yours,

A. H. HALLECK.

Westmoreland, Oneida County, Nov. 24, 1840.

POUDRETTE.

The subscribers reside in the State of New-Jersey, many of us in the vicinity of the Works erected by Anthony Dey of the city of New-York on the Hackensack river in New-Jersey for the manufactory of Urate and Poudrette, called "The Lodi Manufacturing Company." We have used the Poudrette on the spring crops this year, (1840.) We find it a valuable manure, superior to any other kind that we have ever used, and considering the facility of its transportation to the field, the small quantity required in the application to the crops, the quickness of its operation on vegetable matter, and the ease with which it can be applied,—all tend to recommend its use to the farmer and gardener, as the cheapest and best manure, and we recommend it accordingly. Those of us who have applied it to corn and potatoes, think that it ripens those vegetables quicker than any other manure by several weeks.

Jacob D. Van Winkle, John J. Newkirk, John Tise, Daniel Van Riper, George Demott, Henry Drayton, Josiah Hornblower, Cornelius Van Winkle, P. F. Welsh, G. C. Van Riper, George Tise, William Wood, John Duryee, George Newkirk, Garret Newkirk, Daniel Vreeland.

Dated New-Jersey, October, 1840.

Shares in the above Company are \$100 each, and may be had by applying to Anthony Dey, No. 73 Cedar-st., New-York. The owner will receive 20 per cent per annum, payable in money, or 50 bushels of Poudrette. The price to those who buy Poudrette, is 40 cents a bushel. It costs the stock-holders 12 cents a bushel. One cent's worth, that is 20 gills, will manure 20 hills of corn, and the like quantity, 15 hills of potatoes.

Newspapers friendly to agriculture, will confer a favor on the farmers and gardeners by publishing the above.

Large crop of Carrots.

MESSRS. GAYLORD & TUCKER.—Having a yard containing 8 rods of ground where sheep had been yarded, I was induced to sow it to carrots. I plowed and harrowed it, raked off the lumps and stones, (it being of a gravelly soil,) and sowed it in the month of May, in drills one foot apart; but in consequence of the drouth which followed, the crop was materially injured. They were hoed twice, and harvested in the month of October, and measured from 6 to 15 inches in circumference, and from 9 to 18 inches in length; the produce was 53 bushels and one peck, equal to 1,065 per acre. I think them equal to the beet for cattle or sheep, and far preferable to the rutabaga, though not so easily raised. No roots fed in winter to milch cows, will give cream a finer color, or butter a richer flavor than carrots. A. M.

New Haven, Vt. 12th month, 1840.

CIRCULATION OF THE CULTIVATOR.

THE following table shows the extent of the circulation of the Cultivator, last year, both as to numbers and territory:

New-York,	7,184	Rhode Island,	218
Virginia,	1,822	North Carolina,	158
Connecticut,	1,634	Wisconsin,	165
Ohio,	1,325	Tennessee,	156
Massachusetts,	1,215	Lower Canada,	138
Pennsylvania,	1,126	South Carolina,	121
Illinois,	872	Dis. of Columbia,	82
Vermont,	741	Delaware,	79
New-Jersey,	664	Alabama,	68
Maryland,	635	Maine,	59
Michigan,	593	Iowa,	53
Upper Canada,	563	Nova Scotia,	29
Indiana,	531	New-Brunswick,	18
Kentucky,	337	Louisiana,	14
Missouri,	335	Arkansas,	12
Mississippi,	262	Florida,	4
New-Hampshire,	254		
Georgia,	221		

21,973

TO CORRESPONDENTS.

THOSE whose favors are laid over to next month, will see the cause of it in the fullness of our pages. No correspondent should consider his favor rejected, because it may occasionally have to wait a month or two for a place.

The letter of "J. C. H." of Iowa, though dated in June last, was only received last month. He shall have an article on the culture of Buckwheat in season for next year. We shall be glad to receive the promised account of his experiments in farming at the West.

The request of JOHN TORBERT, Esq. of Wilmington, shall be complied with, and he may depend on receiving the corn in season for planting. We shall also comply with the request of Mr. R. B. MARTIN of Connecticut, if the articles he desires can be procured.

Several selections have been furnished us for publication, for which we have no room. We could easily fill an additional sheet monthly, with capital selections from the many excellent Agricultural periodicals on our table, which we should be glad to lay before the public, all of which we are compelled by the press of original contributions, to lay aside.

CURING HAMS.—We should be glad to receive from R. E. M. Esq., of Buckingham, Va., the promised account of his method of curing hams, alluded to in his letter of March last.

SILK CULTURE.—A correspondent in New-Jersey asks—"Do you desire communications in relation to the Silk Culture, which is really going ahead as rapidly as root culture?"—Certainly, we want all the facts we can obtain on this subject, and hope the writer as well as others, will furnish us with the results of their experience in this new business.

HAY PRESS.—A gentleman of Virginia wishes to procure immediately, a Hay Press,—a portable one if such there is, would be preferred. Can any one of our friends inform us where one can be procured, the price, &c.

CORRECTION.—In 6th line from bottom, first column, page 174, vol. 7, for "two and a half inch pipe," read "a half inch pipe."

TRANSPORTATION OF CATTLE.—A gentleman in Connecticut, wishes to comply with our friend Robinson's advice to take some blood stock with him to the West, whether he contemplates moving in the spring. He therefore wishes to know what would be the expense of transporting two Short horn cows and their calves from Albany to Chicago. He says—"Perhaps Mr. Allen of Buffalo, will take the trouble to ascertain and inform you, as I shall want a pair of his pigs to take along with me." We shall be glad to receive the information, as it may be interesting to many of our readers. The usual price of freight from Albany to Chicago is from \$1.75 to \$2 per hundred.

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